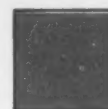
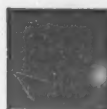
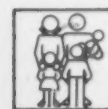
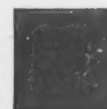


DEMOGRAPHIC BULLETIN



No. 1

March, 1986

A NEW SERVICE FROM UALR

The publication of this first edition of the *Demographic Bulletin* marks yet another approach by the University of Arkansas at Little Rock to provide applied research products for business, government, and industry in our state. The *Bulletin* is published by the Division of Demographic Research at UALR and it is hoped that a continuing series of *Bulletins* will be forthcoming on topics of demographic and social data, manpower analyses, and population estimates and projections. Your reaction to this and subsequent *Bulletins* is invited and appreciated.—

Forrest H. Pollard, Ph.D.
Division Chief

Arkansas' Population 65 Years of Age and Over

A Historical and Projected Analysis of Its Size and Composition, 1930-2000

Introduction

This report contains an analysis of the historical and projected size of Arkansas' population 65 years of age and over—historically, the years 1930 to 1980 and projected, 1980 to 2000. The age group will be discussed in reference to its sex, age, and color composition. Selected comparative statistics relative to the nation's historical and projected growth and composition of the age group will also be presented.

Recent state growth and net migration patterns will be summarized. The concluding part of the report will be a review of the distribution of the age group within the state's eight planning and development districts.

Data Presentation and Analysis

As shown in Table 1, Arkansas' 1980 decennial census count of the population 65 years of age and over, 312,477, was four times (4.13) greater than the 1930 count of 75,600. The data also indicate that relatively significant absolute and percentage growth was recorded in each decennial census interval during the 50-year period.

Even though the age group is projected to continue its growth pattern over the 20-year period from 1980 to 2000, both the absolute and relative growth anticipated for 1980-1990 and 1990-2000 is projected to be below that experienced between 1970 and 1980.

However, the projected count of 420,400 for the year 2000 is five and a half times (5.56) the 1930 count.

Projected state and national rates for the period 1980-2000 reflect a similar pattern. The state and national growth rates projected for 1980-1990 are 21.6 and 24.1 respectively, and for 1990-2000, 10.6 and 10.2 respectively.¹

Arkansas' 1980 population 65 years of age and over represented 13.7 percent of the total state count of 2,286,435 and for the year 2000 is projected to represent 14.8 percent of the projected total of 2,835,400. Comparable national figures are 11.3 percent for 1980 and a projected 13.0 percent for the year 2000.

A distribution of Arkansas' population 65 years of age and over by selected age groups is contained in Table 2. The data indicate that in 1930 over two-thirds (69.3 percent) of this age group's population was under

75, whereas by the year 2000 just one-half (52.4 percent) of the age group is projected to be under 75. The greatest single change is projected to occur in the group 85 years of age and over. Its percentage share of the 65 years of age and over age-group total is expected to increase from 4.7 percent in 1930 to 12.9 percent in the year 2000.

A review of the age-group changes projected to occur between 1980 and 2000 shows that the population of all age groups will increase. However, the 65-69 year age-group's population is projected to remain stable between 1990 and 2000. The projected 20-year absolute and relative growth is as follows: (1) 65 years of age and over, 107,923 (34.5 percent); (2) 65-69, 9,601 (9.0 percent); (3) 70-74, 18,052 (21.0 percent); (4) 75-79, 26,472 (43.8 percent); (5) 80-84, 25,752 (77.5 percent); and (6) 85 years of age and over, 28,046 (106.4 percent).

TABLE 1
POPULATION 65 YEARS OF AGE AND OVER, ARKANSAS: 1930-2000¹

Year	Population	Population Change		
		Time Interval	Number	Percent
2000	420,400	1990-2000	40,300	10.6
1990	380,100	1980-1990	67,623	21.6
1980	312,477	1970-1980	74,717	31.4
1970	237,760	1960-1970	43,388	22.3
1960	194,372	1950-1960	44,377	29.6
1950	149,995	1940-1950	42,735	39.8
1940	107,260	1930-1940	31,600	41.9
1930	75,600			

¹Data for years 1990 and 2000 is projected; other years are Census data.

Source: (1) 1930-1980 Data from U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, *General Population Characteristics, Part 5, Arkansas, Table 20*; and (2) 1990 and 2000 data from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 937, *Provisional Projections of the Population of States, by Age and Sex: 1980 to 2000*, U.S. Government Printing Office, Washington, D.C., 1983.

¹The national growth rates are from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 952, *Projections of the Population of the United States, by Age, Sex, and Race: 1983 to 2080*, U.S. Government Printing Office, Washington, D.C., 1984, pp. 53 and 73.

TABLE 2
POPULATION 65 YEARS OF AGE AND OVER, BY AGE, ARKANSAS: 1930-2000¹

Year	Age Group					85 Years of Age and Over
	65 Years of Age and Over	65-69	70-74	75-79	80-84	
	Number ¹					
2000	420,400	115,900	104,200	86,900	59,000	54,400
1990	380,100	116,000	98,300	78,400	50,200	37,200
1980	312,477	106,299	86,148	60,428	33,248	26,354
1970	237,760	84,407	62,208	45,721	26,615	18,809
1960	194,372	72,719	54,802	37,082	18,701	11,068
1950	149,995	63,715	41,289	38,956	(1) ²	6,035
1940	107,260	48,937	29,863	28,460	(1) ²	(1) ²
1930	75,600	29,986	22,381	13,255	6,448	3,530
	Percent Distribution					
2000	100.0	27.6	24.8	20.7	14.0	12.9
1990	100.0	30.5	25.9	20.6	13.2	9.8
1980	100.0	34.0	27.6	19.3	10.6	8.4
1970	100.0	35.5	26.2	19.2	11.2	7.9
1960	100.0	37.4	28.2	19.1	9.6	5.7
1950	100.0	42.5	27.5	26.0	(1) ²	4.0
1940	100.0	45.6	27.8	26.5	(1) ²	(1) ²
1930	100.0	39.7	29.6	17.5	8.5	4.7

¹Data for years 1990 and 2000 is projected; other years are Census data.

²Symbol (1) indicates that the number for the age group is included in preceding age category.

Source: *Loc. cit.*, Table 1.

As seen in Table 3, the female share of the total population 65 years of age and over has shown an upward movement in each decennial census since 1930, and this trend is projected to continue to the year 2000. The 1930 female population share was 45.2 and that projected for the year 2000, 57.9 percent. The projected male and female populations for the year 2000—177,000 and 243,600—indicate that there will be only 72.7 males for every 100 females.

A breakdown of Arkansas' population 65 years of age and older by color is provided by Table 4, which shows that white and nonwhite 1980 population counts were 4.35 and 3.25 times their 1930 levels. The

relative shares of the total population accounted for by whites has increased in each census since 1940 and conversely, nonwhite shares have fallen. The 1980 white population count of 264,738 represented 84.7 percent of the total population and the nonwhite count of 47,739, 15.3 percent. It is also worthy of note that the 1980 nonwhite share for this age group is less than its share of the total population, 17.3 percent. The nonwhite share of the state's total population 65 years of age and over may decline somewhat further over the period to the year 2000. By contrast, the nonwhite share of the total population is expected to remain relatively stable over the time period.

TABLE 3
POPULATION 65 YEARS OF AGE AND OVER, BY SEX, ARKANSAS: 1930-2000¹

Year	Number			Percent Distribution		
	Total	Male	Female	Total	Male	Female
2000	420,600	177,000	243,600	100.0	42.1	57.9
1990	380,100	160,700	219,400	100.0	42.3	57.7
1980	312,477	132,741	179,736	100.0	42.5	57.5
1970	237,760	106,140	131,620	100.0	44.6	55.4
1960	194,372	94,925	99,447	100.0	48.8	51.2
1950	149,995	77,068	72,927	100.0	51.4	48.6
1940	107,260	57,387	49,873	100.0	53.5	46.5
1930	75,600	41,409	34,191	100.0	54.8	45.2

¹Data for years 1990 and 2000 is projected; other years are Census data.

Source: *Loc. cit.*, Table 1.

Recent State Growth and Net Migration

Estimates of 1984 state populations 65 years of age and over provide the following comparisons: (1) Arkansas' and Rhode Island's population 65 years of age and over represented 14.3 percent of their respective total populations, a proportion exceeded only by Florida's 17.6 percent, but seven other states had proportions that were within a percentage point or

less of Arkansas'; (2) thirty-eight states experienced growth rates between 1980 and 1984 that exceeded Arkansas'; (3) the state's age-group estimate of 336,000 ranked twenty-ninth among the fifty; and (4) the state's 1980-1984 estimated growth rate of 7.4 percent was two percentage points below the national average of 9.7 percent.²

TABLE 4
POPULATION 65 YEARS OF AGE AND OVER, BY COLOR, ARKANSAS: 1930-1980

Year	Number			Percent Distribution		
	Total	White	Nonwhite	Total	White	Nonwhite
1980	312,477	264,738	47,739	100.0	84.7	15.3
1970	237,760	194,135	43,625	100.0	81.7	18.3
1960	194,372	155,421	38,951	100.0	80.0	20.0
1950	149,995	116,681	33,314	100.0	77.8	22.2
1940	107,260	82,564	24,696	100.0	77.0	23.0
1930	75,600	60,925	14,675	100.0	80.6	19.4

Source: U.S. Bureau of the Census, 1980 Census of Population, *General/Population Characteristics, Part 5, Arkansas*, Table 20, U.S. Government Printing Office, Washington, D.C., 1982.

²U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 970, *State Population Estimates, by Age and Components of Change: 1980 to 1984*, U.S. Government Printing Office, Washington, D.C., June 1985.

Census migration data for the five-year period 1975 to 1980 indicate that the state experienced a net immigration of 61,320 persons five years of age and over and that 9,000 (14.7 percent) of this total were 65

years of age and over. The migration rates (net migration as a percent of 1980 population) was 2.9 percent for each age group.

Distribution of the Age Group Within the State

Table 5 contains the estimated 1984 and the 1980 Census distributions of the population 65 years of age and over among the state's eight planning and development districts. Appendix Figure 1 is a state map showing the boundaries of the eight districts and the counties comprising each.

The Northwest, Central, White River, and West Central districts experienced 1980-1984 growth rates for this age group that exceeded the state average of 7.4 percent. Even though these districts have been accounting for an increasing share of the age group's population in recent years, the 1984 estimated count in each of the eight districts is relatively significant in respect to size, ranging

from 28,799 in the Western to 55,363 in the Central District.

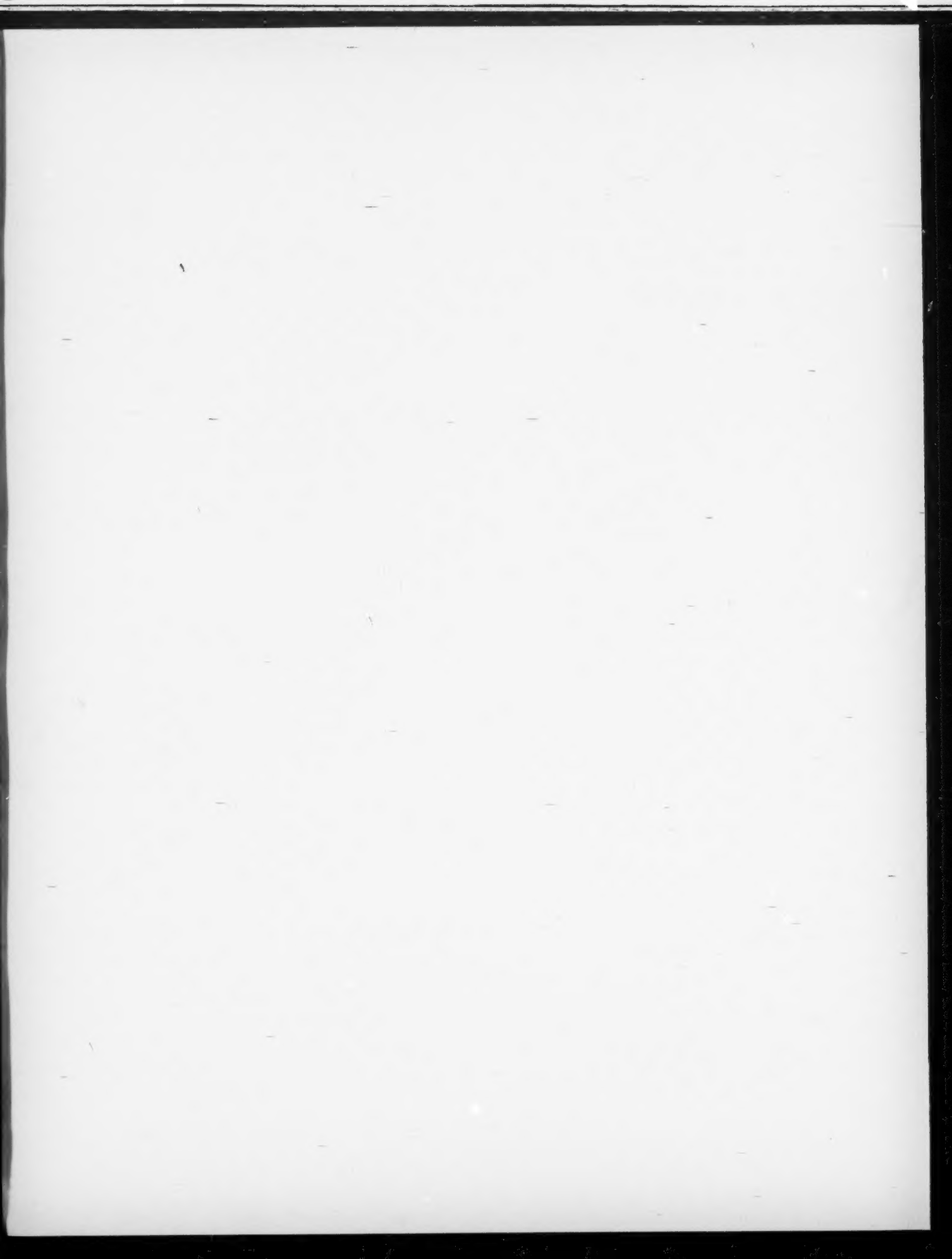
Appendix Table 1 indicates that 26 or just over a third of Arkansas' 75 counties accounted for seventy-five (76.1) percent of the 1980-1984 growth of 23,185 for this age group. The growth rate for each of these counties equaled or exceeded the state average of 7.4 percent. In fact, the 26 counties experienced a combined growth rate of 10.8 percent for the 65 years of age and over age group compared to only 3.7 percent for the other 49 counties. Only five of the 26-county group were located in the state's east and southern areas, namely Craighead, Greene, Lawrence, Miller, and Poinsett counties.

TABLE 5
POPULATION 65 YEARS OF AGE AND OVER, ARKANSAS, BY
PLANNING AND DEVELOPMENT DISTRICT: 1984 AND 1980

Planning and Development District	1984 (estimate)	1980 (census)	Change, 1980-1984		Percent Distribution	
			Number	Percent	1984	1980
Northwest EDD	49,872	44,628	5,244	11.8	14.9	14.3
White River PDD	33,622	30,879	2,743	8.9	10.0	9.9
East PDD	51,156	48,927	2,229	4.6	15.2	15.7
Western PDD	28,799	26,980	1,819	6.7	8.6	8.6
West Central PDD	41,439	38,425	3,014	7.8	12.3	12.3
Central PDD	55,363	50,734	4,629	9.1	16.5	16.2
Southeast EDD	34,500	33,023	1,477	4.5	10.3	10.6
Southwest PDD	40,911	38,881	2,030	5.2	12.2	12.4
State Total	335,662	312,477	23,185	7.4	100.0	100.0

Source: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 970, *State Population Estimates by Age and Components of Change: 1980 to 1984*, U.S. Government Printing Office, Washington, D.C., June 1985.

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APPENDIX

FIGURE 1
ARKANSAS' PLANNING AND DEVELOPMENT DISTRICTS

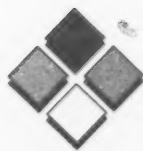




APPENDIX TABLE 1
ARKANSAS COUNTIES WITH 1980-1984 GROWTH
RATES FOR THE POPULATION 65 YEARS OF AGE
AND OVER THAT EXCEEDED THE STATE AVERAGE

County	Population Change, 1980-1984	
	Number	Percent
1. Van Buren	529	22.2
2. Benton	2,060	16.5
3. Baxter	1,165	15.6
4. Miller	782	15.5
5. Sharp	512	15.5
6. Cleburne	467	15.4
7. Faulkner	711	14.5
8. Pope	597	13.0
9. Craighead	848	12.3
10. Perry	128	12.2
11. Saline	587	12.1
12. Marion	242	11.0
13. Scott	157	9.7
14. Newton	98	9.5
15. Washington	989	9.2
16. Pulaski	2,975	9.0
17. Lawrence	276	8.9
18. Garland	1,175	8.6
19. Lonoke	344	8.6
20. Greene	372	8.5
21. Hot Spring	323	8.5
22. Sebastian	974	8.1
23. White	545	7.9
24. Izard	210	7.9
25. Boone	332	7.6
26. Poinsett	256	7.4
Total	17,654	10.8

Source: *Loc. cit.*, Table 5.

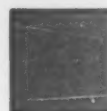


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DEMOGRAPHIC BULLETIN



No. 2

May 1986

Provisional Projections of the Population of the State of Arkansas, by County, 1980-2000

Prepared by

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This bulletin contains county-level projections of Arkansas' population for the years 1980-2000. Also included in the data presentation are a summary of state projections for the same period, in which the population data is shown by age and sex, and a historical listing of county-level decennial census counts for the years 1960-1980.

The narrative presentation will include an analysis of historical and projected population change, a discussion of the methodology used in constructing the projections, an explanation of the assumptions underlying the projections, and a general commentary and advice on their utilization.

Historical and Projected Population Change

Arkansas experienced a consistent population growth from the time of the state's organization as a territory in 1819 until the 1940s. Arkansas' population fell from a 1940 count of 1,949,387 to 1,909,511 in 1950, reflecting a 10-year loss of 39,876 (2.0 percent). The population decline continued throughout the 1950s, and the loss recorded for the decade was substantially greater than that of the previous 10 years. The state's

1960 count of 1,786,272 reflected a population drop of 123,239, or a relative decline of 6.5 percent from the 1950 count.

By contrast, Arkansas' growth over the next 10 years (137,023 or 7.7 percent) to a 1970 population total of 1,923,295 marked a significant reversal of the 20-year loss experience. This upward movement is continuing as evidenced by the fact that the 1980 count marked a high point in Arkansas' growth. This count of 2,286,435 reflects an absolute growth of 363,140 over the 1970 count, or a relative increment of 18.9 percent. The greater share of this growth was the result of a significant net immigration into the state during the 1970s as is reflected by the counts. This immigration reflects a reversal of a net outmigration flow that had persisted over the three decades between 1940 and 1970. The state's growth rate of 18.9 percent is also impressive when compared to the national growth rate of 11.4 percent for the same decade. In fact, Arkansas ranked 17th among the 50 states as to rate of growth during the 1970s. Nevertheless, Arkansas ranked 33rd as to 1980 population size, reflecting a drop from the 32nd position held in 1970.

Three factors account for change in an area's population over time, namely births, deaths, and migration.¹ An estimated net immigration of 231,376

¹Net migration is computed as the difference between the "actual population" and the "expected population" at the end of a specific time period. Expected population is the population at the beginning of the time period plus the amount of natural increase (excess of births over deaths) during the time period.

persons into Arkansas between 1970 and 1980 accounted for almost two-thirds (63.7 percent) of the state's decade growth (363,140) and natural increase (births minus deaths) for the remaining 131,764 (36.3 percent) of the growth. A 1975-1980 net migration estimate based on place-of-residence sample data from the 1980 Census indicates that a net immigration of approximately 62,500 persons into Arkansas occurred during the five-year period. These data seem to indicate that the level of net migration into the state was substantially less in the latter half of the decade.

The data shown in Table 2 project, over the next 10 years, a level of natural increase that is consistent with that experienced in the state between 1970 and 1980. By contrast, projected net immigration for 1980-1990 is expected to be only about half that of the previous 10 years. It should be noted, though, that the net immigration flow estimated for the period 1980-1985 (57,400) is approximately 90 percent of that estimated to have taken place between 1975 and 1980.

The Arkansas population of 2,540,977 projected for 1990 represents a growth of 254,542 (11.1 percent) over the 1980 Census count of 2,286,435. This expected growth represents approximately two-thirds of that experienced during the 1970s and implies an annual growth rate of 1.06 percent for the 1980s, an annual rate that is substantially below the 1.73 percent rate of the 1970s.

An essentially similar growth pattern is projected for the 1990s. Arkansas' population for the year 2000 is projected to be 2,791,342. This number reflects an absolute growth of 250,365, or a relative increment of 9.9 percent over the 1990 projection.

A review of the county data shown in Table 1 indicates that only eight of the state's counties sustained population losses between 1970 and 1980, whereas over a third (28 counties) experienced losses during the previous decade. The eight counties that sustained population losses during the 1970s and their relative declines were: Lee, -17.7 percent; Phillips, -13.2 percent; Monroe, -10.3 percent; Mississippi, -4.1 percent; Woodruff, -3.0 percent; Chicot, -2.0 percent; Prairie, -1.1 percent; and Ouachita, -1.1 percent. Of Arkansas' remaining 67 counties, 27 grew at rates below the state average of 18.9 percent for the decade, while 40—more than half the 75 counties—had growth rates exceeding the state average.

Projected 1990 county numbers (Table 2) indicate that 27 counties, or 36.0 percent of the 75 counties, are expected to experience 1980-1990 growth rates exceeding the 11.1 percent projected for the state, with 45 counties to have growth rates that are below the state average. The remaining three counties are projected to lose population. However, the number of counties losing population could increase if sufficiently attractive job opportunities do not materialize and, obviously, the three counties whose populations are projected to decline could grow given greater economic stimulus.

Table 3 contains a summary of Arkansas' actual and projected population by five-year age groups and sex for the five time intervals from 1980 to 2000.

A summary of the data for selected years by major age groups is shown below:

POPULATION, ARKANSAS, BY MAJOR AGE GROUPS: 1980-2000

Age Group	1980 Census		Projected			
	Number	Percent	1990		2000	
			Number	Percent	Number	Percent
Under 6 years	211,665	9.3	222,248	8.7	213,781	7.7
6 to 17	458,376	20.0	449,630	17.7	467,230	16.7
18 to 44	862,250	37.7	1,027,958	40.5	1,084,524	38.9
45 to 64	441,667	19.3	473,553	18.6	630,192	22.6
65 years and over	312,477	13.7	367,588	14.5	395,615	14.2
All ages	2,286,435	100.0	2,540,977	100.0	2,791,342	100.0
Median age	30.6		33.1		36.3	

The data indicate that a significant increase in the median age of the state's population is expected to occur over the 20-year period, from 30.6 years in 1980 to 36.3 years in 2000. An essentially identical aging pattern is projected for the nation's population. Its median age is projected to move from its 1980 level of 30.0 years to 36.3 years in 2000.

The age-group data indicate that although growth is projected to occur within each group between 1980 and 2000, the projected absolute and relative differences between the groups are substantial. Arkansas' total population is expected to increase by 22.1 percent or 504,907 during the 20-year period. The greatest relative increase is projected for the 45 to 64 year age group, 42.7 percent (188,525). The growth rates in the groups 18 to 44 and 65 years and over are projected to be similar, 25.8 and 26.6 percent respectively. The projected absolute increases for the two groups are 222,274 and 83,138 respectively. Relatively little growth is anticipated in the age groups under 6 years and 6 to 17 years. The projected relative and absolute increases for these groups are 1.0 percent (2,116) and 1.9 percent (8,854) respectively. Relative shares of the total population accounted for by the two age groups are also expected to drop significantly.

Methodology and Assumptions

The cohort component technique was utilized in constructing the provisional projections. Application of the methodology involves separate assumptions concerning future levels of fertility, mortality, and net migration. As previously stated, these are the components accounting for change in a particular population over time. The county-level projections were prepared in five-year time intervals, by five-year age groups, by sex, and in addition for specific counties, by color (white and nonwhite).² Data from the 1980 Census were utilized as the benchmark count.

Age-specific birth rates were projected for females 10 to 49 years of age in five-year age groups for five-year time periods. The Arkansas rates are based on the total

fertility rates used in the middle series of a set of national population projections published by the Bureau of the Census.³

Projected white total fertility rates by five-year time intervals were: 1980-1985, 1,773.6; 1985-1990, 1,825.0; 1990-1995, 1,831.7; and 1995-2000, 1,802.0.⁴ Actual 1980 state and national rates were 1,833.0 and 1,748.5 respectively.

Projected nonwhite total fertility rates were: 1980-1985, 2,680.0; 1985-1990, 2,594.5; 1990-1995, 2,458.0; and 1995-2000, 2,287.0. Actual 1980 state and national rates were 2,661.0 and 2,323.0 respectively.

A replacement-level population is represented by a total fertility rate of 2,120.0.

White and nonwhite deaths projected to occur in Arkansas were based on anticipated changes in United States mortality rates as projected by the Social Security Administration. The middle mortality assumption on which the survivorship factors utilized in the study were based reflects a decline in mortality rates resulting in an ultimate life expectancy of 81.0 years in 2080.⁵ Life expectancies of the total population for the state and nation for the period 1979-1981 were 73.7 and 73.9 years respectively. Because survivorship patterns contained in the 1979-1981 state and national life tables appeared sufficiently similar for both the white and nonwhite populations and for the sex categories within each color, projected national survivorship rates were utilized, without adjustment, to project Arkansas deaths.

Net migration is expected to occur throughout the remainder of the projection interval at the rate estimated to have taken place between 1980 and 1985. The estimated level of state net immigration was 57,400, indicating a net migration rate of 2.4 percent. Even though the 1970-1980 overall rate of net immigration is reduced by 51 percent over the projection period, decade county-level age-sex-color-specific migration rate patterns were not changed.

An analysis of various data series symptomatic of population change and migration was the basis for the

²Separate projections of the white and nonwhite populations were prepared for those counties in which the nonwhite population was at least 7 percent of the county's total population.

³U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 922, *Projections of the Population of the United States: 1982 to 2050* (Advance Report) (Washington: Government Printing Office, October 1982).

⁴According to the Bureau of the Census, "the total fertility rate indicates the number of children that women would have in their lifetime if, at each year of age, they experienced the age-specific birth rates occurring in a specified year." The rates cited in this study are expressed as births per thousand women.

⁵U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 952, *Projections of the Population of the United States, by Age, Sex, and Race: 1983 to 2080* (Washington: Government Printing Office, May 1984).

decision concerning the expected rate of net immigration. Specific data series analyzed were births, deaths, school enrollment, employment, Medicare enrollment, residential electric connections, and driver's license registration. Also considered was a 1985 provisional state population estimate of 2,359,000 prepared by the Census Bureau; this source included a 1980-1985 net migration estimate of 6,000, a migration rate of 0.3 percent.

A methodological procedure used in evaluating the reliability of the cohort component projections was the derivation of a civilian labor force from the 1985 population projections. The civilian labor force was derived by applying projected age-sex-color-specific labor force participation rates to the projected population. The size of the resulting civilian labor force was then compared to a July 1985 estimate prepared by the Arkansas Employment Security Division. The projected labor force was only 1 percent above the Employment Security Division estimate of 1,057,700.

Social and economic projections such as those presented by this report and the accompanying tables are constructed within a larger environmental framework. Underlying this framework are the broad assumptions that: (1) a major economic change will not occur; (2) large-scale armed conflict will not take place;

and (3) there will be no devastating epidemics or natural catastrophies.

Utilization of Projections

The practical applicability of these projections over the 20-year time frame depends on the degree to which projections of fertility, mortality and net migration rates correspond to what actually does take place regarding each of these components of change.

Because the migration component reflects the effect of the economic downturn that occurred in the early part of the five-year period from 1980-1985, this component should be closely monitored and the projections revised if the migration rate changes sufficiently.

In reference to the county-level projections, there is general agreement among demographers that projections for large counties are generally more reliable than those for small counties. Projections for relatively stable population areas are usually more reliable than for those areas experiencing relatively rapid growth or decline. The same general comment would hold when projecting the characteristics (age, sex, and color) of an area's population.

APPENDIX



TABLE 1
POPULATION OF ARKANSAS COUNTIES, 1980, 1970, AND 1960

County	1980	1970	1960	Change, 1970-1980		Change, 1960-1970	
				Number	Percent	Number	Percent
Arkansas	24,175	23,347	23,355	828	3.5	-8	0.0
Ashley	26,538	24,976	24,220	1,562	6.3	756	3.1
Baxter	27,409	15,319	9,943	12,090	78.9	5,376	54.1
Benton	78,115	50,476	36,272	27,639	54.8	14,204	39.2
Boone	26,067	19,073	16,116	6,994	36.7	2,957	18.3
Bradley	13,803	12,778	14,029	1,025	8.0	-1,251	-8.9
Calhoun	6,079	5,573	5,991	506	9.1	-418	-7.0
Carroll	16,203	12,301	11,284	3,902	31.7	1,017	9.0
Chicot	17,793	18,164	18,990	-371	-2.0	-826	-4.3
Clark	23,326	21,537	20,950	1,789	8.3	587	2.8
Clay	20,616	18,771	21,258	1,845	9.8	-2,487	-11.7
Cleburne	16,909	10,349	9,059	6,560	63.4	1,290	14.2
Cleveland	7,868	6,605	6,944	1,263	19.1	-339	-4.9
Columbia	26,644	25,952	26,400	692	2.7	-448	-1.7
Conway	19,505	16,805	15,430	2,700	16.1	1,375	8.9
Craighead	63,239	52,068	47,303	11,171	21.5	4,765	10.1
Crawford	36,892	25,677	21,318	11,215	43.7	4,359	20.4
Crittenden	49,499	48,106	47,564	1,393	2.9	542	1.1
Cross	20,434	19,783	19,551	651	3.3	232	1.2
Dallas	10,515	10,022	10,522	493	4.9	-500	-4.8
Desha	19,760	18,761	20,770	999	5.3	-2,009	-9.7
Drew	17,910	15,157	15,213	2,753	18.2	-56	-0.4
Faulkner	46,192	31,572	24,303	14,620	46.3	7,269	29.9
Franklin	14,705	11,301	10,213	3,404	30.1	1,088	10.7
Fulton	9,975	7,699	6,657	2,276	29.6	1,042	15.7
Garland	70,531	54,131	46,697	16,400	30.3	7,434	15.9
Grant	13,008	9,711	8,294	3,297	34.0	1,417	17.1
Greene	30,744	24,765	25,198	5,979	24.1	-433	-1.7
Hempstead	23,635	19,308	19,661	4,327	22.4	-353	-1.8
Hot Spring	26,819	21,963	21,893	4,856	22.1	70	0.3
Howard	13,459	11,412	10,878	2,047	17.9	534	4.9
Independence	30,147	22,723	20,048	7,424	32.7	2,675	13.3
Izard	10,768	7,381	6,766	3,387	45.9	615	9.1
Jackson	21,646	20,452	22,843	1,194	5.8	-2,391	-10.5
Jefferson	90,718	85,329	81,373	5,389	6.3	3,956	4.9
Johnson	17,423	13,630	12,421	3,793	27.8	1,209	9.7
Lafayette	10,213	10,018	11,030	195	1.9	-1,012	-9.2
Lawrence	18,447	16,320	17,287	2,127	13.0	-947	-5.5
Lee	15,539	18,884	21,001	-3,345	-17.7	-2,117	-10.1
Lincoln	13,369	12,913	14,447	456	3.5	-1,534	-10.6
Little River	13,952	11,194	9,211	2,758	24.6	1,983	21.5
Logan	20,144	16,789	15,957	3,355	20.0	832	5.2
Lonoke	34,518	26,249	24,551	8,269	31.5	1,698	6.9
Madison	11,373	9,453	9,068	1,920	20.3	385	4.2
Marion	11,334	7,000	6,041	4,334	61.9	959	15.9
Miller	37,766	33,385	31,686	4,381	13.1	1,699	5.4
Mississippi	59,517	62,060	70,174	-2,543	-4.1	-8,114	-11.6
Monroe	14,052	15,657	17,327	-1,605	-10.3	-1,670	-9.6
Montgomery	7,771	5,821	5,370	1,950	33.5	451	8.4
Nevada	11,097	10,111	10,700	986	9.8	-589	-5.5
Newton	7,756	5,844	5,963	1,912	32.7	-119	-2.0
Ouachita	30,541	30,896	31,641	-355	-1.1	-745	-2.4
Perry	7,266	5,634	4,927	1,632	29.0	707	14.3
Phillips	34,772	40,046	43,997	-5,274	-13.2	-3,951	-9.0
Pike	10,373	8,711	7,864	1,662	19.1	847	10.8
Poinsett	27,032	26,822	30,834	210	0.8	-4,012	-13.0
Polk	17,007	13,297	11,981	3,710	27.9	1,316	11.0
Pope	39,021	28,607	21,177	10,414	36.4	7,430	35.1
Prairie	10,140	10,249	10,515	-109	-1.1	-266	-2.5
Pulaski	340,613	287,189	242,980	53,424	18.6	44,209	18.2
Randolph	16,834	12,645	12,520	4,189	33.1	125	1.0
St. Francis	30,858	30,799	33,303	59	0.2	-2,504	-7.5
Saline	53,161	36,107	28,956	17,054	47.2	7,151	24.7
Scott	9,685	8,207	7,297	1,478	18.0	910	12.5
Searcy	8,847	7,731	8,124	1,116	14.4	-393	-4.8
Sebastian	95,172	79,237	66,685	15,935	20.1	12,552	18.8
Sevier	14,060	11,272	10,156	2,788	24.7	1,116	11.0
Sharp	14,607	8,233	6,319	6,374	77.4	1,914	30.3
Stone	9,022	6,838	6,294	2,184	31.9	544	8.6
Union	48,573	45,428	49,518	3,145	6.9	-4,090	-8.3
Van Buren	13,357	8,275	7,228	5,082	61.4	1,047	14.5
Washington	100,494	77,370	55,797	23,124	29.9	21,573	38.7
White	50,835	39,253	32,745	11,582	29.5	6,508	19.9
Woodruff	11,222	11,566	13,954	-344	-3.0	-2,388	-17.1
Yell	17,026	14,208	11,940	2,818	19.8	2,268	19.0
STATE	2,286,435	1,923,295	1,786,272	363,140	18.9	137,023	7.7

Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Population, 1980: Number of Inhabitants, Arkansas*, PC80-1-A5, 1982; *Census of Population, 1970: Number of Inhabitants, Arkansas, Final Report* PC(1)-A5, 1971, Table 9, pp. 16-17; and *Census of Population, 1960: Characteristics of the Population, Arkansas*, Vol. 1, Part 5, 1963, Table 6, pp. 10-11 (Washington: Government Printing Office).

TABLE 2
POPULATION PROJECTIONS OF ARKANSAS COUNTIES, 1990, 1995, AND 2000

County	Census 1980	Estimated 1985	Projected			Change, 1980-1990		Change, 1990-2000	
			1990	1995	2000	Absolute	Percent	Absolute	Percent
Arkansas	24,175	24,620	24,989	25,273	25,416	814	3.4	427	1.7
Ashley	26,538	27,210	27,916	28,567	29,053	1,378	5.2	1,137	4.1
Baxter	27,409	29,974	32,635	35,583	38,948	5,226	19.1	6,313	19.3
Benton	78,115	85,014	92,418	100,190	108,272	14,303	18.3	13,854	17.2
Boone	26,067	27,610	29,335	31,138	32,949	3,268	12.5	3,614	12.3
Bradley	13,803	14,088	14,389	14,663	14,864	586	4.3	475	3.3
Calhoun	6,079	6,261	6,452	6,619	6,766	373	6.1	314	4.9
Carroll	16,203	16,976	17,813	18,681	19,565	1,610	9.9	1,752	9.8
Chicot	17,793	18,029	18,251	18,465	18,609	458	2.6	358	2.0
Clark	23,326	24,154	24,848	25,438	25,942	1,522	6.5	1,094	4.4
Clay	20,616	20,959	21,328	21,647	21,866	712	3.5	538	2.5
Cleburne	16,909	18,552	20,357	22,310	24,392	3,448	20.4	4,035	19.8
Cleveland	7,868	8,179	8,543	8,950	9,360	675	8.6	817	9.6
Columbia	26,644	27,162	27,623	27,994	28,243	979	3.7	620	2.2
Conway	19,505	20,188	20,910	21,627	22,264	1,405	7.2	1,354	6.5
Craighead	63,239	67,212	71,071	74,594	77,785	7,832	12.4	6,714	9.5
Crawford	36,892	40,017	43,483	47,181	50,983	6,591	17.9	7,500	17.3
Crittenden	49,499	51,417	53,353	55,035	56,214	3,854	7.8	2,861	5.4
Cross	20,434	20,864	21,329	21,772	22,106	895	4.4	777	3.6
Dallas	10,515	10,782	11,020	11,229	11,419	505	4.8	399	3.6
Desha	19,760	20,512	21,262	21,972	22,597	1,502	7.6	1,335	6.3
Drew	17,910	18,906	19,943	20,960	21,907	2,033	11.4	1,964	9.9
Faulkner	46,192	51,370	56,963	62,764	68,747	10,771	23.3	11,784	20.7
Franklin	14,705	15,445	16,276	17,180	18,079	1,571	10.7	1,803	11.1
Fulton	9,975	10,406	10,857	11,321	11,789	882	8.8	932	8.6
Garland	70,531	74,470	78,503	82,511	86,450	7,972	11.3	7,947	10.1
Grant	13,008	13,888	14,865	15,893	16,914	1,657	14.3	2,049	13.8
Greene	30,744	32,332	34,045	35,775	37,457	3,301	10.7	3,412	10.0
Hempstead	23,635	24,843	26,168	27,577	29,002	2,533	10.7	2,834	10.8
Hot Spring	26,819	28,124	29,469	30,807	32,066	2,650	9.9	2,597	8.8
Howard	13,459	13,886	14,393	14,929	15,467	934	6.9	1,074	7.5
Independence	30,147	32,165	34,370	36,655	38,959	4,223	14.0	4,589	13.4
Izard	10,768	11,271	11,728	12,167	12,608	960	8.9	880	7.5
Jackson	21,646	22,133	22,572	22,923	23,182	926	4.3	610	2.7
Jefferson	90,718	94,935	98,670	101,956	104,657	7,952	8.8	5,987	6.1
Johnson	17,423	18,232	19,105	20,044	21,025	1,682	9.7	1,920	10.1
Lafayette	10,213	10,331	10,444	10,551	10,623	231	2.3	179	1.7
Lawrence	18,447	18,943	19,466	19,985	20,460	1,019	5.5	994	5.1
Lee	15,539	15,283	15,071	14,818	14,469	-468	-3.0	-602	-4.0
Lincoln	13,369	13,835	14,330	14,869	15,347	961	7.2	1,017	7.1
Little River	13,952	14,760	15,636	16,522	17,363	1,684	12.1	1,727	11.1
Logan	20,144	20,829	21,630	22,487	23,358	1,486	7.4	1,728	8.0
Lonoke	34,518	36,960	39,715	42,681	45,647	5,197	15.1	5,932	14.9
Madison	11,373	11,778	12,214	12,677	13,140	841	7.4	926	7.6
Marion	11,334	12,393	13,575	14,927	16,476	2,241	19.8	2,901	21.4
Miller	37,766	39,551	41,375	43,094	44,601	3,609	9.6	3,226	7.8
Mississippi	59,517	60,773	61,862	62,666	63,109	2,345	3.9	1,247	2.0
Monroe	14,052	13,952	13,839	13,686	13,468	-213	-1.5	-371	-2.7
Montgomery	7,771	8,147	8,563	9,020	9,488	792	10.2	925	10.8
Nevada	11,097	11,351	11,618	11,904	12,201	521	4.7	583	5.0
Newton	7,756	8,266	8,822	9,409	10,014	1,066	13.7	1,192	13.5
Ouachita	30,541	32,244	34,037	35,813	37,494	3,496	11.5	3,457	10.2
Perry	7,266	7,651	8,084	8,549	9,020	818	11.3	936	11.6
Phillips	34,772	34,734	34,694	34,516	34,109	-78	-0.2	-585	-1.7
Pike	10,373	10,764	11,213	11,675	12,145	840	8.1	932	8.3
Poinsett	27,032	27,531	28,036	28,448	28,681	1,004	3.7	645	2.3
Polk	17,007	17,670	18,426	19,242	20,076	1,419	8.3	1,650	9.0
Pope	39,021	41,979	45,197	48,483	51,700	6,176	15.8	6,503	14.4
Prairie	10,140	10,229	10,324	10,393	10,420	184	1.8	96	0.9
Pulaski	340,613	367,351	393,150	417,676	441,153	52,537	15.4	48,003	12.2
Randolph	16,834	17,874	19,028	20,296	21,608	2,194	13.0	2,580	13.6
St. Francis	30,858	31,652	32,437	33,146	33,664	1,579	5.1	1,227	3.8
Saline	53,161	58,374	64,072	70,073	76,088	10,911	20.5	12,016	18.8
Scott	9,685	9,947	10,254	10,585	10,889	569	5.9	635	6.2
Searcy	8,847	9,082	9,355	9,640	9,915	508	5.7	560	6.0
Sebastian	95,172	100,562	106,075	111,364	116,386	10,903	11.5	10,311	9.7
Sevier	14,060	14,718	15,451	16,216	16,948	1,391	9.9	1,497	9.7
Sharp	14,607	16,057	17,644	19,423	21,434	3,037	20.8	3,790	21.5
Stone	9,022	9,574	10,181	10,827	11,461	1,159	12.9	1,280	12.6
Union	48,573	50,037	51,404	52,519	53,342	2,831	5.8	1,938	3.8
Van Buren	13,357	14,517	15,767	17,102	18,523	2,410	18.0	2,756	17.5
Washington	100,494	107,660	114,504	120,973	127,218	14,010	13.9	12,714	11.1
White	50,835	53,678	56,725	59,773	62,693	5,890	11.6	5,968	10.5
Woodruff	11,222	11,316	11,409	11,480	11,505	187	1.7	96	0.8
Yell	17,026	17,539	18,098	18,654	19,184	1,072	6.3	1,086	6.0
STATE	2,286,435	2,412,078	2,540,977	2,668,552	2,791,342	254,542	11.1	250,365	9.9

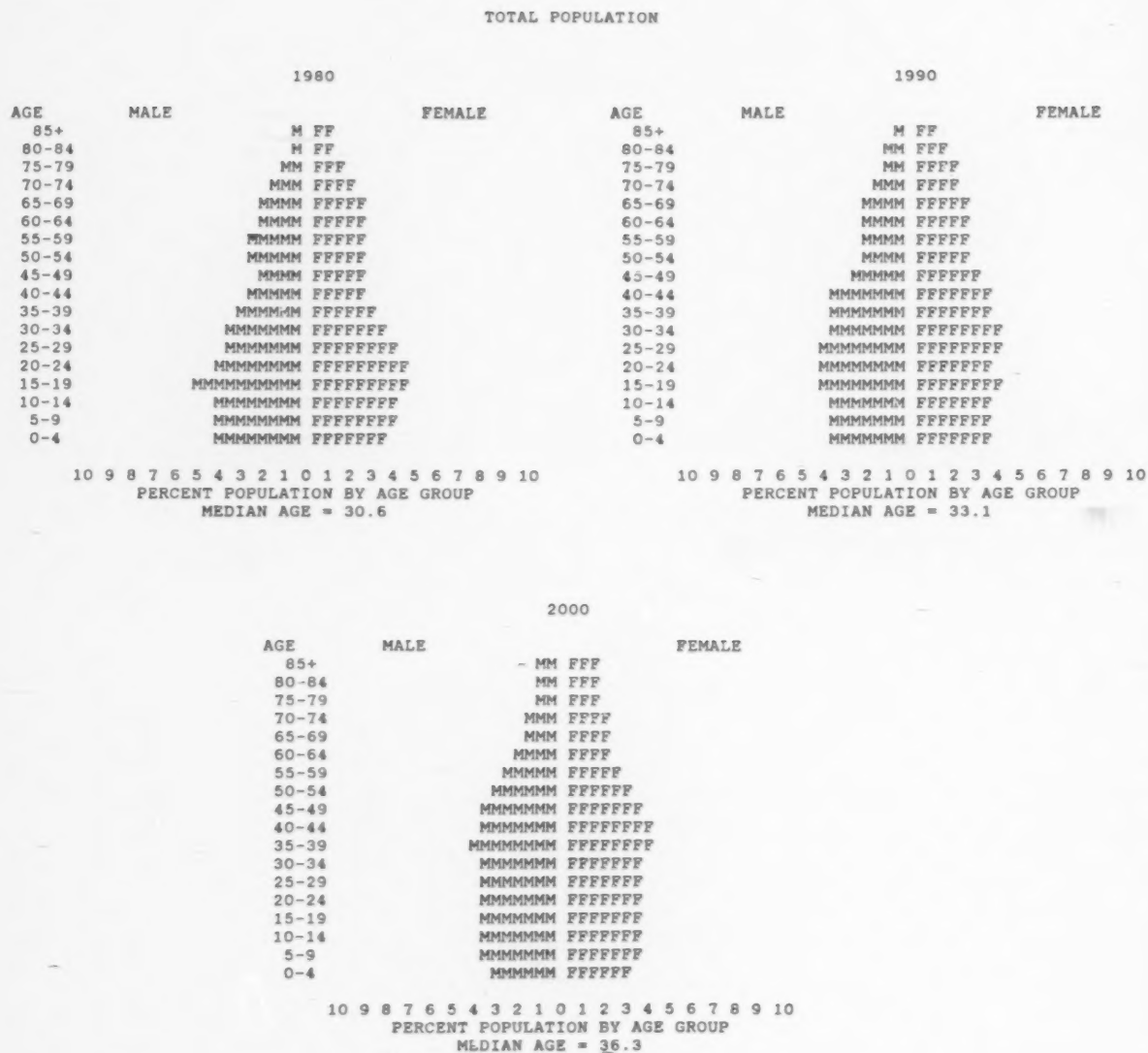
Source: Census data from U.S. Bureau of the Census. Estimates and projections prepared by Demographic Research, Center for Information Services, Research and Public Service, University of Arkansas at Little Rock, March 1986.

TABLE 3
POPULATION PROJECTIONS, ARKANSAS: 1980-2000

Sex and Age Group	1980 Census	1985 Estimate	Projections		
			1990	1995	2000
Both Sexes, All Ages	2,286,435	2,412,078	2,540,977	2,668,552	2,791,342
Under 5 years	175,592	179,600	185,575	182,814	176,314
5 — 9 years	180,365	179,293	183,365	189,816	187,333
10 — 14 years	185,491	185,765	184,733	189,034	196,041
15 — 19 years	214,322	195,480	197,009	196,810	202,205
20 — 24 years	193,769	211,241	193,180	195,429	195,212
25 — 29 years	174,313	188,285	204,846	186,391	188,605
30 — 34 years	161,024	180,423	194,682	212,668	192,919
35 — 39 years	133,636	165,901	185,968	200,801	220,268
40 — 44 years	113,779	137,120	170,478	191,122	206,638
45 — 49 years	107,324	115,600	139,618	173,764	194,891
50 — 54 years	110,435	108,143	116,739	141,382	176,249
55 — 59 years	113,577	110,224	108,182	117,126	142,352
60 — 64 years	110,331	112,199	109,014	107,421	116,700
65 — 69 years	106,299	103,093	104,823	102,260	101,164
70 — 74 years	86,148	93,611	91,065	93,126	91,282
75 — 79 years	60,428	70,006	76,816	75,499	77,836
80 — 84 years	33,248	44,212	52,054	57,952	57,897
85 years and over	26,354	31,882	42,830	55,137	67,436
Male, All Ages	1,104,688	1,166,056	1,230,590	1,295,859	1,360,060
Under 5 years	90,138	92,213	95,253	93,847	90,510
5 — 9 years	92,287	91,983	94,089	97,375	96,122
10 — 14 years	94,932	95,077	94,811	97,031	100,604
15 — 19 years	108,641	99,204	99,990	100,223	102,945
20 — 24 years	95,013	106,785	97,998	99,204	99,555
25 — 29 years	85,136	91,717	102,888	93,901	95,054
30 — 34 years	78,989	88,365	95,014	107,052	97,798
35 — 39 years	64,914	81,322	91,034	97,942	110,872
40 — 44 years	55,535	66,717	83,755	93,797	101,081
45 — 49 years	51,379	56,405	67,953	85,421	95,725
50 — 54 years	51,978	51,423	56,662	68,476	86,285
55 — 59 years	52,325	51,189	50,900	56,302	68,334
60 — 64 years	50,680	50,835	50,002	50,030	55,589
65 — 69 years	48,578	46,008	46,254	45,786	46,093
70 — 74 years	37,625	40,892	38,885	39,342	39,230
75 — 79 years	24,701	28,570	31,439	30,218	30,843
80 — 84 years	12,705	16,515	19,429	21,713	21,184
85 years and over	9,132	10,836	14,234	18,199	22,236
Female, All Ages	1,181,747	1,246,022	1,310,387	1,372,693	1,431,282
Under 5 years	85,454	87,387	90,322	88,967	85,804
5 — 9 years	88,078	87,310	89,276	92,441	91,211
10 — 14 years	90,559	90,688	89,922	92,003	95,437
15 — 19 years	105,681	96,276	97,019	96,587	99,260
20 — 24 years	98,756	104,456	95,182	96,225	95,657
25 — 29 years	89,177	96,568	101,958	92,490	93,551
30 — 34 years	82,035	92,058	99,668	105,616	95,121
35 — 39 years	68,722	84,579	94,934	102,859	109,396
40 — 44 years	58,244	70,403	86,723	97,325	105,557
45 — 49 years	55,945	59,195	71,665	88,343	99,166
50 — 54 years	58,457	56,720	60,077	72,906	89,964
55 — 59 years	61,252	59,035	57,282	60,824	74,018
60 — 64 years	59,651	61,364	59,012	57,391	61,111
65 — 69 years	57,721	57,085	58,569	56,474	55,071
70 — 74 years	48,523	52,719	52,180	53,784	52,052
75 — 79 years	35,727	41,436	45,377	45,281	46,993
80 — 84 years	20,543	27,697	32,625	36,239	36,713
85 years and over	17,222	21,046	28,596	36,938	45,200

Source: Prepared by Demographic Research, Center for Information Services, Research and Public Service, University of Arkansas at Little Rock, March 1986.

FIGURE 1
POPULATION PYRAMIDS FOR ARKANSAS, 1980-2000



Source: Prepared by Demographic Research, Center for Information Services, Research and Public Service, University of Arkansas at Little Rock, March 1986.

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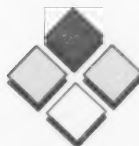
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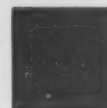
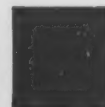
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DEMOGRAPHIC BULLETIN



No. 3

September 1987

Arkansas' Civilian Employment Growth: 1974-1986

A Sub-State Comparison and Analysis of Employment Changes from 1974 to 1980 and from 1980 to 1986

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Introduction

This report presents an analysis of employment trends in Arkansas over a 12-year period, from 1974 to 1986. The initial section provides an overview by dealing with statewide figures and rates of growth/decline in particular employment sectors such as manufacturing. This section also provides comparison with national trends. The middle section, the major focus of this report, concentrates on an analysis of Arkansas' county and Planning and Development District changes in employment. Emphasis is given to a comparison of total and manufacturing growth occurring from 1980 to 1986 and 1974 to 1980. Attention will also be directed to the level of employment concentration within these geographic areas and to the employment-population relationship. A brief final section offers conclusions to be drawn from the foregoing analyses, and supporting statistics for the county and the Planning and Development District summaries are to be found in the Appendix tables.

Statewide Employment

Arkansas' civilian employment numbers indicate that a growth of 24.7 percent (194,100) was experienced over the 12-year period from 1974 to 1986—from a 1974 employment

count of 784,900 to 979,000 in 1986. The nation experienced an essentially similar rate of employment growth for this time interval—26.3 percent. Growth in the United States' South Region was even more impressive at 37.1 percent.

An analysis of annual employment changes occurring over the 12-year interval indicates that Arkansas experienced two distinct growth patterns during this time period, one occurring from 1974 to 1980 and the other from 1980 to 1986. The state's employment increased by 17.7 percent (139,100) between 1974 and 1980, but by only 6.0 percent (55,000) between 1980 and 1986. By comparison, national growth rates for the two time intervals were 14.4 and 10.4 percent respectively. Even though both the state and the national growth rates fell over the last six years relative to the previous six, Arkansas' 66.1 percent drop in the growth rate was substantially greater than the nation's 27.8 percent decline.

It is also interesting to note the interdependency that exists between an area's level of employment and the size of its population. Employed persons accounted for 37.4, 40.5, and 41.4 percent respectively of the state's 1974, 1980, and 1986 population counts. Arkansas' population was estimated to have increased by 8.8 percent (185,358) between 1974 and 1980 and by only 3.7 percent (85,642) between 1980 and

1986. The state's decline in the rate of population growth between the two periods, 58.0 percent, was close to the previously noted 66.1 percent drop in employment growth. National population growth was stable over the two time intervals (6.2 and 6.4 percent, respectively).

Three national economic recessions occurred during the two six-year periods under analysis and obviously affected the level of employment. The recession years were 1974, 1980, and 1982.

Manufacturing employment growth accounted for only a small share of total employment gain over the 12 years. As shown below, the state's manufacturing employment increased by only 4.0 percent over the 1974-1986 time interval and, furthermore, the 1980-1986 growth of 1.4 percent was a drop from the 2.6 percent growth experienced between 1974 and 1980. Nevertheless, relative to the nation's 4.4 percent decline in manufacturing employment over the 12 years, Arkansas' manufacturing growth experience is definitely a strength.

It should also be noted that the manufacturing sector's share of total employment fell in both Arkansas and the nation over the 12 years, from 26.0 percent of the state's 1974 employment to 21.7 percent in 1986, and for the nation from 23.1 to 17.5 percent.

MANUFACTURING EMPLOYMENT, ARKANSAS: 1986, 1980, AND 1974

Year	Number	Time Period	Change	
			Number	Percent
1986	212,100	1980-1986	3,000	1.4
1980	209,100	1974-1980	5,200	2.6
1974	203,900	1974-1986	8,200	4.0

Source: Arkansas Employment Security Division, Research and Analysis Section, *Arkansas Labor Force Statistics, Annual Averages, 1980-1986*, Little Rock, May 1987.

Agricultural employment fell in both the state and nation over the 12 years, Arkansas' estimated 1974-1986 rate of decline (21.8 percent) being twice that of the nation (10.0 percent). Nevertheless, as shown in the following insert, the rate of decline in the state's agricultural employment actually fell over the two six-year intervals, from 14.1 percent to 9.0 percent. The national pattern moved in the opposite direction; the rate of decline moved upward from 4.3 percent between 1974 and 1980 to 6.0 percent between 1980 and 1986.

Actual employment losses in agriculture and in the combined employment categories of domestic services, self-employed, and unpaid family workers, taken in conjunction with only a 4 percent gain in manufacturing employment,

point to other industry sectors as contributors to the total state employment growth of 194,100 from 1974 to 1986. These major growth sectors were services; wholesale and retail trade; finance, insurance, and real estate; transportation and public utilities; and government.

AGRICULTURAL EMPLOYMENT, ARKANSAS: 1986, 1980, AND 1974

Year	Number	Time Period	Change	
			Number	Percent
1986	45,500	1980-1986	-4,500	-9.0
1980	50,000	1974-1980	-8,200	-14.1
1974	58,200	1974-1986	-12,700	-21.8

Source: Arkansas Employment Security Division, Research and Analysis Section, *Arkansas Labor Force Statistics, Annual Averages, 1980-1986*, Little Rock, May 1987.

County-Level Employment

Between 1980 and 1986, approximately one-half (54.7 percent) or 41 of the state's 75 counties experienced employment growth, and the other 34 counties (45.3 percent) had employment losses. The growth counties experienced a combined employment gain of 76,925 and the counties with declining employment had losses totaling 21,925, for a net state employment growth of 55,000. These numbers highlight a growth pattern that was significantly less favorable than that of the previous six years (see Appendix Table 2).

Between 1974 and 1980, 70 of Arkansas' 75 counties experienced employment growth and only five employment losses. The combined 70-county growth was 140,875 and the five-county loss only 1,775, reflecting a net employment gain of 139,100. Those counties that lost employment were Howard (550), Phillips (550), Columbia (475), Chicot (100), and Mississippi (100). Of the 70 growth counties, only three experienced absolute increases of less than 200 and the median employment growth for the 70 counties was an impressive 938. In fact, the first quintile (14) of the 70 growth counties accounted for almost two-thirds (65.4 percent or 92,200) of the 1974-1980 gross state employment gain of 140,875.

The fall in the number of growth counties to 41 for the 1980-1986 interval represented a decline of 41.4 percent in the number of growth counties (70) from the previous six-year level. As in the preceding period, the 1980-1986 employment gain was concentrated in the first quintile (eight) of the 41 growth counties.

This quintile accounted for two-thirds (51,000) of the estimated 76,925 employment gain. Conversely, almost half (46.9 percent or 10,275) of the employment loss of 21,925 was accounted for by seven of the 34 employment-losing counties.

Over one-half of the state's 1986, 1980, and 1974 employment was concentrated in 15 of its 75 counties. The 15 counties with the largest number of employees in 1986 were Pulaski, Washington, Sebastian, Benton, Jefferson, Craighead, Garland, Saline, Faulkner, White, Pope, Crittenden, Union, Mississippi, and Crawford. This first quintile (top fifth) of counties accounted for an increasing share of Arkansas' employment, from 55.9 to 58.8 percent in 12 years. The relative share of total employment accounted for by the lowest two quintiles (40 percent) of counties has remained essentially unchanged from its 1974 share of 12.8 percent. This summary data is shown in the tabular insert below.

Only nine of the 75 counties experienced both an absolute and a relative growth between 1980 and 1986 exceeding that experienced by these counties between 1974 and 1980. The counties were Carroll, Calhoun, Pope, Sebastian, Scott, Perry, Johnson, Marion, and Izard. Yet, an additional 30 counties did experience employment growth over both periods. Even though 34 counties lost employment between 1980 and 1986, only three of these (Phillips, Mississippi, and Chicot) had sustained losses over the 1974-1980 interval as well.

ARKANSAS CIVILIAN EMPLOYMENT CONCENTRATION,
BY COUNTY QUINTILES: 1986, 1980, AND 1974

County Quintile	1986		1980		1974	
	Number	Percent	Number	Percent	Number	Percent
First	575,300	58.8	524,600	56.8	438,775	55.9
Second	170,600	17.4	172,575	18.7	151,000	19.2
Third	109,325	11.2	106,050	11.5	95,300	12.1
Fourth	73,475	7.5	71,825	7.8	60,850	7.8
Fifth	50,300	5.1	48,950	5.3	38,975	5.0
Total	979,000	100.0	924,000	100.0	784,900	100.0

Source: Compiled from Appendix Tables 1 and 2.

Planning and Development District Employment

Employment for the state's eight Planning and Development Districts is shown in Appendix Tables 3 and 4, and a

map delineating the districts is contained in Figure 1 which is shown below.

FIGURE 1
ARKANSAS PLANNING AND
DEVELOPMENT DISTRICTS



In the process of evaluating district or regional growth one should avoid the fallacy of composition—which is the assumption that what is true for the district or region is also true for each of the constituent counties considered individually or, contrariwise, that what is true for each constituent county considered individually is also true for the district or region.

All of Arkansas' Planning and Development Districts experienced employment growth from 1974 to 1980. The growth rates ranged from 10.6 percent in the East District to 33.1 percent in the Northwest, and absolute increases from 9,900 in the Southwest to 36,125 in the Central District. Yet employment losses were recorded by two districts (East and Southeast) over the past six years and in none of the districts did the 1980-1986 growth rate exceed that experienced from 1974 to 1980. Nevertheless, a net employment growth was recorded by each of the districts over the 12-year interval.

Employment increases of the Central (54,400 or 28.8 percent), Northwest (54,275 or 60.1 percent), Western (24,100 or 36.1 percent), and the White River (19,050 or 35.1 percent) districts were especially significant.

**CIVILIAN EMPLOYMENT INCREASE IN ARKANSAS,
BY PLANNING AND DEVELOPMENT DISTRICT: 1974-1986**

District	Number	Percent
Northwest	54,275	60.1
White River	19,050	35.1
East	9,175	6.9
Western	24,100	36.1
West Central	16,450	20.1
Central	54,400	28.8
Southeast	5,700	6.9
Southwest	10,950	12.6
Total	194,100	24.7

Source: Compiled from Appendix Tables 1 and 2.

Appendix Table 4, containing manufacturing employment changes, indicates that most of the districts experienced manufacturing growth patterns that differed significantly from the small net manufacturing growth experience of the state—0.8 percent (1,700) from 1980 to 1986 and 3.4 percent (6,825), 1974 to 1980.¹ In fact, the data seem to indicate that the economic impact resulting from these changes was significant from either a growth or loss perspective for several of the districts.

Of the eight districts, four, the Central, East, Southeast, and West Central, experienced manufacturing employment losses between 1980 and 1986. The losses were significant in all four districts, ranging from 925 (4.5 percent) in the West Central to 5,175 (13.4 percent) in the Central. Manufacturing losses were also experienced by four of the districts between 1974 and 1980: the Southeast, Western, West Central, and Central. The losses ranged from 700 (3.3 percent) in the West Central to 425 (1.1 percent) in the Central.

Districts experiencing 1980-1986 manufacturing growth were the Northwest (5,775 or 20.6 percent); the Western (4,475 or 18.0 percent); the White River (975 or 7.9 percent); and the Southwest (875 or 3.2 percent). All of the four, except the Western, also experienced growth between 1974-1980 and at significant levels.

The East District was the only one to experience growth between 1974 and 1980 (1,850 or 5.4 percent) followed by a loss from 1980 to 1986 (2,600 or 7.2 percent).

The Northwest accounted for half (49.9 percent) of the state's 1974-1986 gross manufacturing growth of 18,825, and the Western, Southwestern, and White River districts for the remaining growth. In contrast, the Central District accounted for over half (54.4 percent) of the state's gross manufacturing loss of 10,300 and the Southeast, West Central, and East for the remaining loss.

The effect of these changes is shown in shifts of the percentage-shares of manufacturing employment accounted for by the various districts. The Northwest and Western districts accounted for 29.9 percent of the state's 1986 manufacturing employment total and for 24.6 percent in 1974. In fact, the Northwest District presently accounts for the greatest share of manufacturing employment, 16.0 percent. Also of importance is the increase in relative shares that occurred in the Southwest and White River districts. Relative shares of manufacturing employment fell in the Central, East, and Southeast districts, from a combined total of 47.1 percent in 1974 to 41.1 percent in 1986. The West Central District also experienced a decline in its share over the 12 years, from 10.5 to 9.3 percent.

Additional evidence of the employment-population relationship mentioned above is the following distribution of Arkansas' population into five 15-county quintiles.

**ARKANSAS' POPULATION CONCENTRATION,
BY COUNTY QUINTILE: 1986**

Quintile	Number	Percent
First	1,287,400	54.3
Second	450,500	19.0
Third	286,800	12.1
Fourth	208,000	8.8
Fifth	139,500	5.9
Total	2,372,200	100.0

Source: Compiled from unpublished 1986 Arkansas county-level population estimates prepared by the Population Division, Bureau of Census.

A comparison of the above distribution to that for employment shown on page 4 indicates that there is a relationship between the level of employment and the population. In 1986, the state's 15 largest counties in respect to employment were also its 15 largest in respect to population.

¹The state manufacturing totals (derived from county data) shown in Appendix Table 4 for the years 1974, 1980, and 1986 differ somewhat from those shown on page two of this report.

Conclusions

A review of the magnitude of the swings in employment occurring within each of the 75 counties over the two time periods seems to indicate that the extent of the swing in employment counts for numerous counties is such that continual economic adjustment is a way of life and that ongoing, well-organized, well-directed economic development efforts are essential to mitigating the effect of these swings. Arkansas must continuously seek or create comparative advantages in respect to those factors that are requisite to economic growth—factors such as natural resources, capital, labor, management, health facilities, education, tax structure, cultural amenities, and the natural and man-made environ-

ment. Change in economic forces is a given, whether it be caused by increased foreign or domestic competition, corporate restructuring, the formation of multinational companies, new products and technologies, or some factor that has yet to emerge.

The following passage from Lewis Carroll's *Through the Looking-Glass* appears to have considerable relevance to the difficulty involved in achieving a level of economic growth that is commensurate with a desired level of economic well-being. " 'A slow sort of country!' said the Queen. 'Now here you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!' "

APPENDIX

TABLE 1
ARKANSAS CIVILIAN EMPLOYMENT, BY COUNTY: 1974, 1980

	1980	1974	Change, 1974-1980	
			Number	Percent
Arkansas	10,575	10,025	550	5.49
Ashley	10,150	9,025	1,125	12.47
Baxter	8,925	7,075	1,850	26.15
Benion	33,975	23,225	10,750	46.29
Bocne	10,950	8,850	2,100	23.73
Bradley	5,075	4,275	800	18.71
Calhoun	2,350	2,000	350	17.50
Carroll	6,675	5,350	1,325	24.77
Chicot	5,625	5,725	-100	-1.75
Clark	9,400	8,450	950	11.24
Clay	7,550	6,925	625	9.03
Cleburne	5,625	4,025	1,600	39.75
Cleveland	2,850	1,900	950	50.00
Columbia	10,550	11,025	-475	-4.31
Conway	7,675	6,325	1,350	21.34
Craighead	28,525	23,250	5,275	22.69
Crawford	16,050	12,525	3,525	28.14
Crittenden	21,900	17,275	4,625	26.77
Cross	7,775	7,375	400	5.42
Dallas	3,875	3,550	325	9.15
Desha	7,025	6,650	375	5.64
Drew	7,350	6,525	825	12.64
Faulkner	21,075	14,825	6,250	42.16
Franklin	5,800	4,500	1,300	28.83
Fulton	3,425	2,450	975	39.80
Garland	26,850	24,575	2,275	9.26
Grant	5,025	4,350	675	15.52
Greene	12,275	11,425	850	7.44
Hempstead	9,525	8,625	900	10.43
Hot Spring	10,625	9,425	1,200	12.73
Howard	5,350	5,900	-550	-9.32
Independence	13,075	9,000	4,075	45.28
Izard	3,725	3,650	75	2.05
Jackson	7,850	7,775	75	0.96
Jefferson	34,975	30,975	4,000	12.91
Johnson	6,075	6,025	50	0.83
Lafayette	3,475	3,275	200	6.11
Lawrence	6,625	5,500	1,125	20.45
Lee	4,400	4,175	225	5.39
Lincoln	4,025	3,150	875	27.78
Little River	4,925	3,800	1,125	29.61
Logan	7,275	5,925	1,350	22.78
Lonoke	15,750	12,350	3,400	27.53
Madison	4,275	3,825	450	11.76
Marion	4,000	3,175	825	25.98
Miller	16,150	11,600	5,550	46.82
Mississippi	20,325	20,425	-100	-0.49
Monroe	4,850	4,375	475	10.86
Montgomery	2,800	2,175	625	28.74
Nevada	3,875	3,400	475	13.97
Newton	2,875	1,875	1,000	53.33
Ouachita	11,725	10,800	925	8.56
Perry	2,600	2,350	250	10.64
Phillips	10,650	11,200	-550	-4.91
Pike	4,050	3,425	625	18.25
Pointsett	10,600	9,525	1,075	11.29
Polk	6,200	4,725	1,475	31.22
Pope	16,275	13,000	3,275	25.19
Prairie	3,750	3,300	450	13.64
Pulaski	155,300	135,700	19,600	14.44
Randolph	6,150	5,950	200	3.36
Saline	24,250	18,300	5,950	32.51
Scott	3,525	2,600	925	35.58
Searcy	2,875	2,375	500	21.05
Sebastian	41,400	36,175	5,225	14.44
Sevier	5,800	5,175	625	12.08
Sharp	4,650	2,700	1,950	72.22
Stone	2,975	2,550	425	16.67
St. Francis	10,675	10,275	400	3.89
Union	19,200	18,350	850	4.63
Van Buren	4,150	3,175	975	30.71
Washington	45,625	34,525	11,100	32.15
White	18,775	15,650	3,125	19.97
Woodruff	3,975	3,225	750	23.26
Yell	7,100	6,275	825	13.15
State Total	924,000	784,900	139,100	17.72

Source: Research and Analysis Section, Arkansas Employment Security Division, (1) 1974 data from *Arkansas Labor Force Statistics Annual Averages, State and Areas*, August 1978 and (2) 1980 data from *Arkansas Revised Labor Force Statistics, Annual Averages, 1980*, revised May 1986 (Little Rock).

TABLE 2
ARKANSAS CIVILIAN EMPLOYMENT, BY COUNTY: 1980, 1986

	1986	1980	Change, 1980-1986	
			Number	Percent
Arkansas	9,700	10,575	-875	-8.27
Ashley	9,950	10,150	-200	-1.97
Baxter	10,475	8,925	1,550	17.37
Benton	44,400	33,975	10,425	30.68
Boone	13,000	10,950	2,050	18.72
Bradley	4,325	5,075	-750	-14.78
Calhoun	4,050	2,350	1,700	72.34
Carroll	9,525	6,675	2,850	42.70
Chicot	5,025	5,625	-600	-10.67
Clark	8,850	9,400	-550	-5.85
Clay	7,300	7,550	-250	-3.31
Cleburne	6,975	5,625	1,350	24.00
Cleveland	2,600	2,850	-250	-8.77
Columbia	11,000	10,550	450	4.27
Conway	6,800	7,675	-875	-11.40
Craighead	31,200	28,525	2,675	9.38
Crawford	18,025	16,050	1,975	12.31
Crittenden	20,150	21,900	-1,750	-7.99
Cross	7,200	7,775	-575	-7.40
Dallas	3,900	3,875	25	0.65
Desha	6,400	7,025	-625	-8.90
Drew	7,050	7,350	-300	-4.08
Faulkner	22,750	21,075	1,675	7.95
Franklin	5,300	5,800	-500	-8.62
Fulton	3,375	3,425	-50	-1.46
Garland	28,550	26,850	1,700	6.33
Grant	5,200	5,025	175	3.48
Greene	12,775	12,275	500	4.07
Hempstead	9,075	9,525	-450	-4.72
Hot Spring	9,150	10,625	-1,475	-13.88
Howard	5,450	5,350	100	1.87
Independence	13,650	13,075	575	4.40
Izard	3,900	3,725	175	4.70
Jackson	7,300	7,850	-550	-7.01
Jefferson	34,550	34,975	-425	-1.22
Johndson	6,950	6,075	875	14.40
Lafayette	2,925	3,475	-550	-15.83
Lawrence	7,500	6,625	875	13.21
Lee	3,925	4,400	-475	-10.80
Lincoln	3,500	4,025	-525	-13.04
Little River	4,725	4,925	-200	-4.06
Logan	8,000	7,275	725	9.97
Lonoke	15,175	15,750	-575	-3.65
Madison	4,325	4,275	50	1.17
Marion	5,225	4,000	1,225	30.63
Miller	16,325	16,150	175	1.08
Mississippi	18,475	20,325	-1,850	-9.10
Monroe	4,350	4,850	-500	-10.31
Montgomery	2,575	2,800	-225	-8.04
Nevada	3,675	3,875	-200	-5.16
Newton	2,700	2,875	-175	-6.09
Ouachita	11,975	11,725	250	2.13
Perry	3,700	2,600	1,100	42.31
Phillips	8,775	10,650	-1,875	-17.61
Pike	3,425	4,050	-625	-15.43
Poinsett	9,350	10,600	-1,250	-11.79
Polk	6,250	6,200	50	0.81
Pope	20,850	16,275	4,575	28.11
Prairie	4,225	3,750	475	12.67
Pulaski	170,825	155,300	15,525	10.00
Randolph	6,350	6,150	200	3.25
Saline	25,925	24,250	1,675	6.91
Scott	5,425	3,525	1,900	53.90
Searcy	3,025	2,875	150	5.22
Sebastian	47,850	41,400	6,450	15.58
Sevier	5,900	5,800	100	1.72
Sharp	5,075	4,650	425	9.14
Stone	3,400	2,975	425	14.29
St. Francis	9,475	10,675	-1,200	-11.24
Union	18,850	19,200	-350	-1.82
Van Buren	4,875	4,150	725	17.47
Washington	51,875	45,625	6,250	13.70
White	21,025	18,775	2,250	11.98
Woodruff	3,675	3,975	-300	-7.55
Yell	7,625	7,100	525	7.39
State Total	979,000	924,000	55,000	5.95

Source: Research and Analysis Section, Arkansas Employment Security Division, *Arkansas Revised Labor Force Statistics Annual Averages, 1980, 1986*; revised May 1986 and February 1987, respectively (Little Rock).

TABLE 3
CIVILIAN EMPLOYMENT IN ARKANSAS,
BY PLANNING AND DEVELOPMENT DISTRICT: 1986, 1980, AND 1974

District	1986	1980	1974
	Number		
Northwest	144,550	120,175	90,275
White River	73,250	68,225	54,200
East	142,475	147,450	133,300
Western	90,850	80,250	66,750
West Central	98,475	93,450	82,025
Central	243,250	224,975	188,850
Southeast	88,300	92,675	82,600
Southwest	97,850	96,800	86,900
Total	979,000	924,000	784,900
	Percent Distribution		
Northwest	14.8	13.0	11.5
White River	7.5	7.4	6.9
East	14.6	16.0	17.0
Western	9.3	8.7	8.5
West Central	10.1	10.1	10.5
Central	24.8	24.3	24.1
Southeast	9.0	10.0	10.5
Southwest	10.0	10.5	11.1
Total	100.0	100.0	100.0
	Change		
	1980-1986		1974-1980
	Number	Percent	Number
Northwest	24,375	20.3	29,900
White River	5,025	7.4	14,025
East	-4,975	-3.4	14,150
Western	10,600	13.2	13,500
West Central	5,025	5.4	11,425
Central	18,275	8.1	36,125
Southeast	-4,375	-4.7	10,075
Southwest	1,050	1.1	9,900
Total	55,000	6.0	139,100
			Percent
Northwest			33.1
White River			25.9
East			10.6
Western			20.2
West Central			13.9
Central			19.1
Southeast			12.2
Southwest			11.4
Total			17.7

Source: Compiled from Appendix Tables 1 and 2.

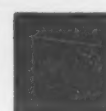
TABLE 4
MANUFACTURING EMPLOYMENT IN ARKANSAS,
BY PLANNING AND DEVELOPMENT DISTRICT: 1986, 1980, AND 1974

District	1986	1980	1974	
Number				
Northwest	33,750	27,975	24,350	
White River	13,300	12,325	11,075	
East	33,625	36,225	34,375	
Western	29,400	24,925	25,550	
West Central	19,600	20,525	21,225	
Central	33,400	38,575	39,000	
Southeast	19,925	21,625	22,250	
Southwest	28,550	27,675	25,200	
Total	211,550	209,850	203,025	
Percent Distribution				
Northwest	16.0	13.3	12.0	
White River	6.3	5.9	5.5	
East	15.9	17.3	16.9	
Western	13.9	11.9	12.6	
West Central	9.3	9.8	10.5	
Central	15.8	18.4	19.2	
Southeast	9.4	10.3	11.0	
Southwest	13.5	13.2	12.4	
Total	100.0	100.0	100.0	
Change				
1980-1986		1974-1980		
Number	Percent	Number	Percent	
Northwest	5,775	20.6	3,625	14.9
White River	975	7.9	1,250	11.3
East	-2,600	-7.2	1,850	5.4
Western	4,475	18.0	-625	-2.4
West Central	-925	-4.5	-700	-3.3
Central	-5,175	-13.4	-425	-1.1
Southeast	-1,700	-7.9	-625	-2.8
Southwest	875	3.2	2,475	9.8
Total	1,700	0.8	6,825	3.4

Source: Compiled from unpublished Arkansas Manufacturing Employment Data supplied by the Research and Analysis Section, Arkansas Employment Security Division, Little Rock, August 1987.



DEMOGRAPHIC BULLETIN



No. 4

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Arkansas' Projected Age Structure by Color and Sex: 1980-2000

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Introduction

The purpose of this report is to provide an analysis of the changes expected to occur in Arkansas' age structure from 1980 to 2000 using population projections produced by the Demographic Research Division.¹ Three major topics are covered. The report's first section, on median age, shows how the median age of the population is affected by the changing age structure. Included is a comparison of Arkansas' median ages (total and by color) to those for the U.S. The second section, on changes in age groups, gives a description of the changes occurring in nine major age groups. This section has subtopics on the population under 65, the elderly (65 and over) population, and on age distributions by color. The final major section, on age-dependency ratios, gives an explanation of how changes in the age structure are reflected in age-dependency or support ratios.

Following a brief overview of the findings presented through these major topics is an explanation of the methodology and assumptions employed in compiling the statistics. The Appendix contains tables which show the population projections, by color, from 1980 to 2000 for the

age groups discussed (Tables I-III), the percent distribution (Table IV) and 20-year absolute and percent changes for each of these age groups (Table V).

Median Age²

One of the most significant observations to be made from an analysis of Arkansas' 1980-2000 population projections by age groups is the aging of the population resulting from two trends: (1) declines in both the number and percentage of persons in the under-24-year-old age group and (2) an increase in the number of persons in the 25-and-over population.

This aging trend is especially noticeable by the steady increases in the median age of the population in each successive five-year period from 1980 to 2000 (Table 1 on following page). In 1980, the median age for the total population was 30.6 years. Based on projections, by the year 2000 the median age will be 36.3 years, averaging an increase of about 1.4 years for each five-year period. Median ages for whites will be slightly higher than the median ages for the

¹The white-nonwhite state-level population projections utilized in this study are unpublished data. The official projections released in August of 1986 in a publication entitled "Provisional Projections of the Population of Arkansas Counties, by Age, Sex, and Color: 1980-2000" did not show state projections by color since the state total was a sum of the county totals, and separate projections by color were calculated only for those counties in which the 1980 nonwhite population was at least 7 percent of the county total. To derive the population projections by color shown in this publication, the actual 1980 state population counts (which were the benchmark) by color were used. The official state-level projections are slightly higher than the unpublished projections. The differences range from less than 1 percent in 1985 to 2.9 percent in 2000.

²This term signifies the age which divides the population into two equal size groups, one of which is older and the other younger than the median age. For example, a median age of 30 years means that half the population is older than 30 and half is younger.

TABLE 1
MEDIAN AGES OF THE POPULATION BY COLOR;
ARKANSAS AND THE U.S.: 1980-2000

Total	1980	1985	1990	1995	2000
United States					
Total	30.0	31.4	33.0	34.7	36.3
White	31.3	32.3	33.9	35.6	37.4
Nonwhite	24.9	26.2	27.7	29.2	30.2
Arkansas					
Total	30.6	31.8	33.1	34.6	36.3
White	32.2	33.5	34.7	36.1	37.8
Nonwhite	23.5	24.6	26.1	27.5	29.0

Source: U.S. data from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 952, *Projections of the Population of the United States, by Age, Sex, and Race: 1983 to 2080*, and 1980 Census of Population, General Population Characteristics, U.S. Summary, Table 43. Arkansas data from *General Population Characteristics, Part 3, Arkansas*, Washington, D.C.: Government Printing Office, August 1982, Table 20.

total population, beginning with a median of 32.2 years in 1980 and increasing to 37.8 years by the year 2000. The nonwhite population will be about nine (9) years younger than the white population for each of the five-year periods, starting with a median age of 23.5 years in 1980 which increases to just 29 years by 2000. The disparity in the median ages of the two groups is a result of nonwhites having a significantly higher percentage than whites of persons in the under-18 population (Table 2 below). Whites have higher

TABLE 2
AGE DISTRIBUTIONS BY COLOR;
ARKANSAS: 1980-2000

Age Group	1980	1985	1990	1995	2000
Total					
Total	100.0	100.0	100.0	100.0	100.0
Under 18	29.3	27.5	26.5	25.6	24.5
18 to 64	57.0	58.3	59.0	60.0	61.3
65 and over	13.7	14.2	14.5	14.4	14.2
Whites					
Total	100.0	100.0	100.0	100.0	100.0
Under 18	27.3	25.4	24.4	23.5	22.6
18 to 64	58.7	59.8	60.4	61.2	62.2
65 and over	14.0	14.8	15.3	15.3	15.2
Nonwhites					
Total	100.0	100.0	100.0	100.0	100.0
Under 18	38.7	37.1	36.4	35.1	33.0
18 to 64	49.2	51.3	52.8	54.7	57.3
65 and over	12.1	11.5	10.8	10.2	9.7

percentages than nonwhites in both the 18-to-64 and 65-and-over population for each of the five-year periods.

Overall, Arkansas' aging trend parallels that of the U.S. Table 1 shows that Arkansas' median ages for these five-year periods from 1980 to 2000 will be almost the same as those for the nation (30.6 years to 35.3 years vs. 30 years to 36.3 years, respectively). Arkansas' white population will be slightly older than the white population for the U.S. for each of the five periods; however, the state's nonwhite population will be one to two years younger than the nonwhite population for the nation.

Changes in the Age Groups

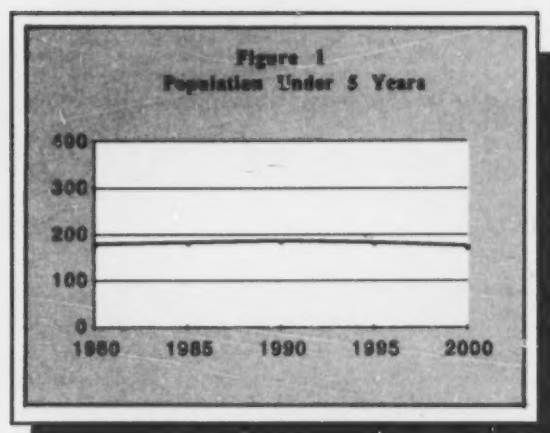
Perhaps the best way to understand what is happening to the population to cause this aging trend is to observe the changes in certain age groups from 1980 to 2000. The rate of growth and/or decline of the population in these age groups is influenced by trends in fertility rates, mortality rates, and net migration. Two terms—"baby boom" and "baby bust"—have been used to refer to periods of high and low fertility rates. The baby-boom cohort, those persons born during the high fertility years from about 1946 to 1964, will make up about one-third to one-fourth of the population from 1980 to 2000. Those persons who are a part of the baby bust were born in the years characterized by record low fertility rates from 1965 until about 1977.

As mentioned earlier, the decline in the 0-to-24-year-old population and the increase in the 25-and-over population are two reasons for the aging trend. For Arkansans as a whole, three age groups, under-5 (preschool), 5 to 17 (school-age), and 18 to 24 (college and military age) show population losses from 1980 to the year 2000. The remaining age groups all reflect population increases for that period (Appendix Table V).

Population Under 65

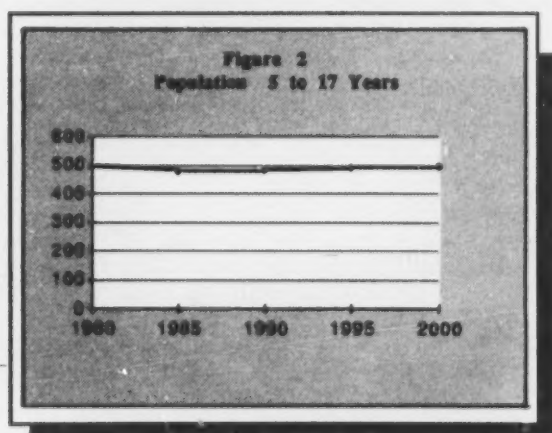
The under-5 population reflects the number of births occurring between the projected five-year periods from 1980 to 2000. For the 20-year period, this age group is expected to experience a population loss of 2.4 percent or over 4,000 persons (from 175,592 in 1980 to 171,450 in 2000). As shown in Figure 1, the number of persons in this population should peak in 1990 at slightly more than 184,000, representing a 10-year increase of 4.4 percent or 8,424 persons, and then decline to about 171,000 by 2000—a 10-year decline of 6.8 percent or close to 12,600 persons (Appendix Table I). (That decline after 1990 may be due partly to a decrease in the number of women aged 20 to 29, since over 60 percent of the births in Arkansas are to women in this age group.) The under-5 age group also experiences a steady drop in its relative share of the population—from 7.7 percent in 1980 to 6.3 percent in 2000 (Appendix Table IV). One obvious indication of the drop in the number of persons in this group is seen in past and projected total fertility rates.³

³According to the Census Bureau, "the total fertility rate indicates the number of children that women would have in their lifetime if, at each year of age, they experienced the age-specific birth rates occurring in a specified year."



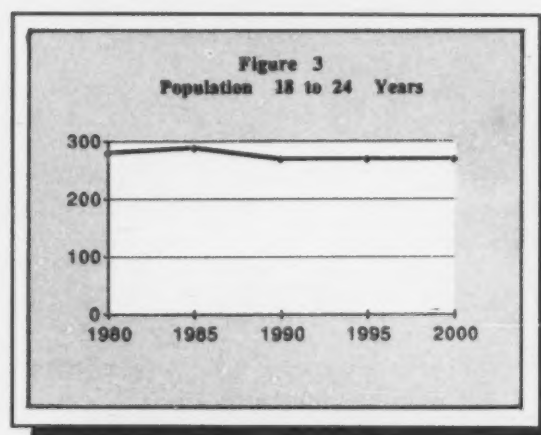
In Arkansas, the 1970 total fertility rate for white females aged 15 to 44 years was about 2.7 births per woman. By 1980, that rate had dropped to about 1.8 births (a total fertility rate of 2.12 births per woman is considered replacement level fertility) and is expected to remain about the same to the year 2000.⁴ For Arkansas' nonwhite females aged 15-to-44, the 1970 total fertility rate was 3.8 births per woman. By 1980, the rate had declined to 2.7 births and is expected to drop to about 2.3 births by 2000. The declining fertility rates and resulting slow growth in this youngest age group may be attributable to the growing number of women in the labor force, marriages taking place at a later age, increases in divorces, an increase in the educational attainment of women, economic factors, and the desire simply to have fewer children.

Projections for the 5-to-17-year-olds, many of whom were born during the period of low fertility rates, show a drop (less than 1 percent) in that population from 1980 to 2000 (from



494,449 persons to 493,043 persons). As Figure 2 shows, this group is expected to experience a decline from 1980 to 1990 of 12,137 persons or 2.5 percent for the 10-year period. From 1990 to 2000, however, the 5-to-17-year-olds will exhibit a slow but steady growth (10,729 persons or 2.2 percent). Because of that slow growth, this age group's relative share of the population will decline each five-year period, dropping from 21.6 percent in 1980 to 18.2 percent by the end of the century.

The young adult population (18 to 24), which represents those persons entering college, the military, or the labor force and those preparing for marriage, is expected to show the greatest decline for all age groups in both percentage and absolute numbers (4.2 percent or about 12,000 persons) for the 20-year period. (See Figure 3.) The projections show a small increase of 2.9 percent or about 8,000 persons from 1980 to 1985 (from 279,498 persons to 287,554 persons).

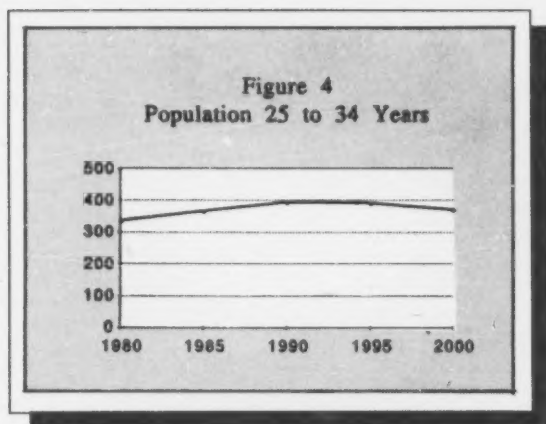


Between 1985 and 1990, this age group will experience a decrease of 6.7 percent or over 19,000 persons (from 287,554 persons in 1985 to 268,400 persons in 1990)—a result of the baby boom cohort's aging out of this group. This population will continue to diminish in size through 1995, recovering by 2000 with an increase of less than 1 percent over its 1995 total (from 267,682 persons to 267,870 persons). The percentage of the population in this group will slip from 12.2 percent in 1980 to 9.9 percent in 2000.

The age groups which appear to be affected most by the large numbers of persons born during the high fertility years are those in the 25-to-64 group. (The age groups considered in this larger population are as follows: 25 to 34 years of age, 35 to 44 years of age, and 45 to 64 years of age.)

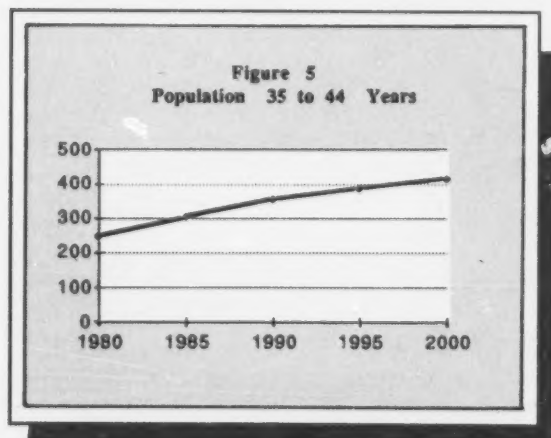
For the 20-year period, the 25-to-34-year-old age group is expected to increase 9.6 percent (over 32,000 persons). From 1980 to 1990, as depicted in Figure 4, this population

⁴Replacement level fertility, in reference to the total fertility rate, is the average number of children needed to replace both parents in the population.



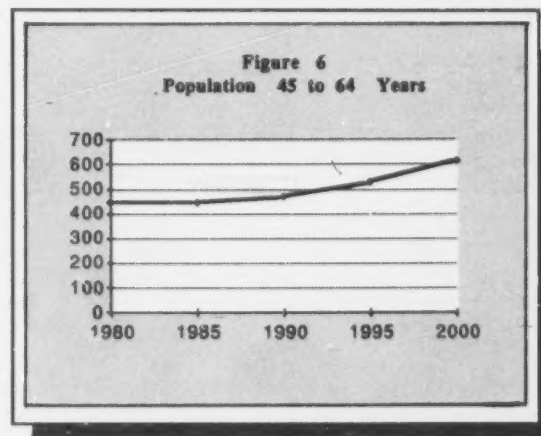
increases from 335,337 persons to 392,680 persons (57,343 persons or 17.1 percent) as the number of persons in the age group who were born during the high fertility years increases. By 1995, most of that high-fertility cohort will have aged out of this population (the youngest will be 31 years old), causing a decline of more than 3,500 persons (less than 1 percent) between 1990 and 1995 and a 6.4 percent decline (25,040 persons) from 1990 to 2000. This group's share of the population will rise from 14.7 percent in 1980 to 15.6 percent in 1990, then decline to 14.9 percent by 1995 and finally to just 13.6 percent by 2000.

In the under-65 population, the age group to be most affected by the aging of the large numbers of baby boomers will be the 35-to-44-year-olds. This adult group will experience a population increase in each five-year period of the 20-year period beginning with 247,415 persons in 1980 and increasing to 413,858 persons by 2000, a gain of 166,443 persons or 67.3 percent for the 20-year interval, the largest percent increase of all the age groups in the under-65



population. (See Figure 5.) In addition, this group is also expected to experience the largest increase in percentage points (about 4.5) of its relative share of the population for the same interval. That share rises from almost 11 percent in 1980 to just over 15 percent in the year 2000.

The 45-to-64-year-old age group—which includes persons in their later working years and those approaching retirement—is expected to experience a population increase of approximately 173,000 persons or 39.1 percent for the 20-year period (from 441,667 in 1980 to 614,353 in 2000). Figure 6 shows that a modest increase (25,705 persons or 5.8 percent) will occur between 1980 and 1990 (from 441,667 persons to 467,372 persons). However, between 1990 and 2000, as the baby-boom cohort ages into this group, that population will jump from 467,372 persons to 614,353 persons (an increase of 146,981 persons or 31.4 percent). Its relative share of the population will be about 19 percent for each five-year period from 1980 to 1990, increasing to



slightly more than 20 percent by 1995 and finally claiming over one-fifth (22.6 percent) of the state's population by the year 2000.

Elderly Population

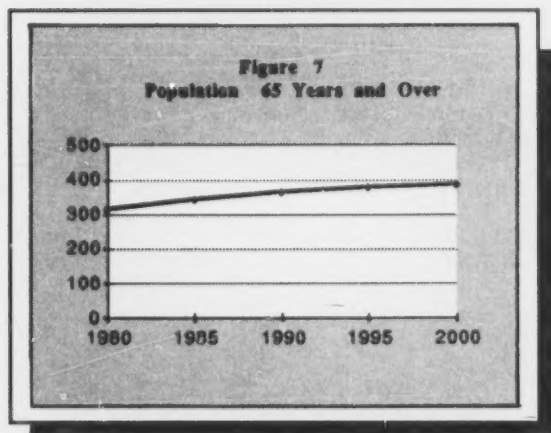
Overall, the 65-and-over population is projected to increase by 23.1 percent (72,242 persons) from 1980 to 2000—from 312,477 persons in 1980 to 384,719 persons in 2000. (See Figure 7.) While this age group will experience a population increase in each 5-year period of the 20-year interval, almost 70 percent (50,776 persons) of its total growth will occur during the 10-year period from 1980 to 1990. Beginning in 1990, the growth in this age group will slow down, leaving the 65-and-over population with an increase of just 5.9 percent or about 21,400 persons from 1990 to 2000.⁵ This age group's share of the total population

⁵Nationally, the slowdown in growth for the 65-and-over population is considered to be a result of the "small birth cohorts from the Depression entering their late sixties" (U.S. Department of Commerce, Current Population Reports, P-25, No. 952, *Projections of the Population*). This may also be true for Arkansas.

will increase from 13.7 percent in 1980 to 14.5 percent in 1990, then slip to 14.2 percent by 2000.

The 75-and-over population is projected to increase about 64 percent (or close to 77,000 persons) for the 20-year period (proportionally, about three times as fast as the 65-and-over group). Just as for the 65-and-over population, much of this total growth (about 64 percent) will occur in the first 10 years from 1980 to 1990 (a 10-year increase of about 41 percent or 48,984 persons) with a 16.3 percent increase (27,607 persons) from 1990 to 2000. (See Figure 8.) The 75-and-over age group's relative share of the total population will increase steadily from 5.2 percent in 1980 to 7.2 percent in 2000.

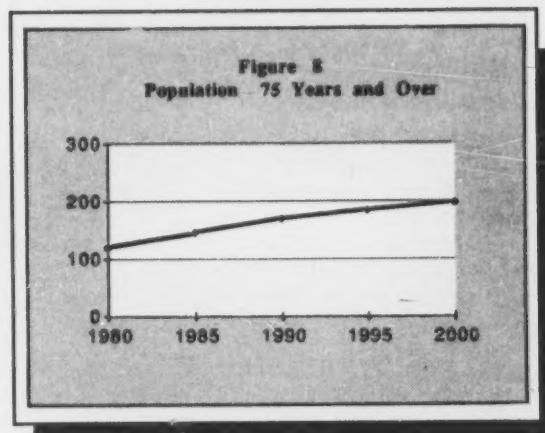
The fastest growing segment of the elderly population will be the very old—those persons 85 and over. As shown in Figure 9, this population is expected to increase by an overwhelming 139.1 percent or about 37,000 persons for the 20-year period (from 26,354 in 1980 to 63,013 in 2000); in



addition, the 85-and-over age group will nearly double its share of the state's population for the same period—from 1.2 percent in 1980 to 2.3 percent in 2000.

Even though these 20-year percent increases for Arkansas' older population groups are impressive, they are less impressive than those for the nation, at least in the age groups 65-and-over (23.1 percent vs. 36.7 percent) and 75-and-over (63.8 percent vs. 73.0 percent). Arkansas is expected to experience a larger percent increase in its 85-and-over population than the U.S. (139.1 percent vs. 119.9 percent) for this same period.

Three factors may have contributed to the current large increases in Arkansas' elderly population: (1) an increase in longevity, (2) the 1970-1980 net immigration for the 65-and-over population, and (3) early 20th-century fertility rates. The 1979-1981 life tables for Arkansas show a life expectancy at birth of 73.7 years for the total population, compared to a life expectancy of 70.7 years reflected in the 1969-1971 life tables. Also, the 65-and-over population accounted for about 45,000 (or about one-fifth) of Arkansas' estimated 1970 to

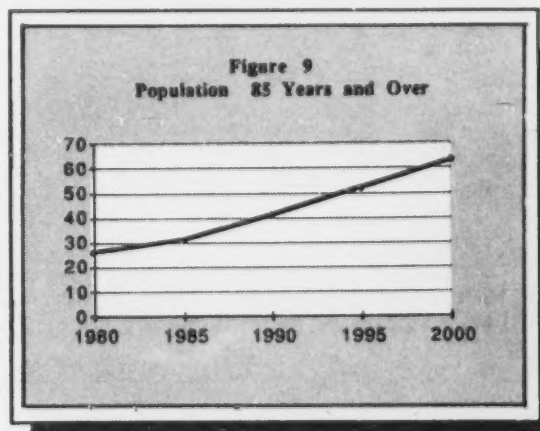


1980 net immigration of 231,467 persons (McGehee and Pollard, "Arkansas Net Migration"). Finally, and what is considered to be the prime reason nationally for the current growth in the elderly population, the large increases may be the result of these persons being born during a period of unusually high fertility rates in the early 1900s.

Figure 10 shows graphically the changes in all age groups for each of the five-year periods from 1980 to 2000.

Age Distribution by Color

While growth patterns by age group for whites and nonwhites will be basically the same as those for the total Arkansas population (Appendix Tables I-III), there are some differences in the two groups worth mentioning. Particularly, from 1980 to 2000, nonwhites are expected to experience higher percent increases than whites in each of the age groups in the population under 65, while whites show higher percentage gains for the 65-and-over population (Appendix Table V). In fact, the nonwhite under-65 population is expected to grow faster than the 65-and-over population



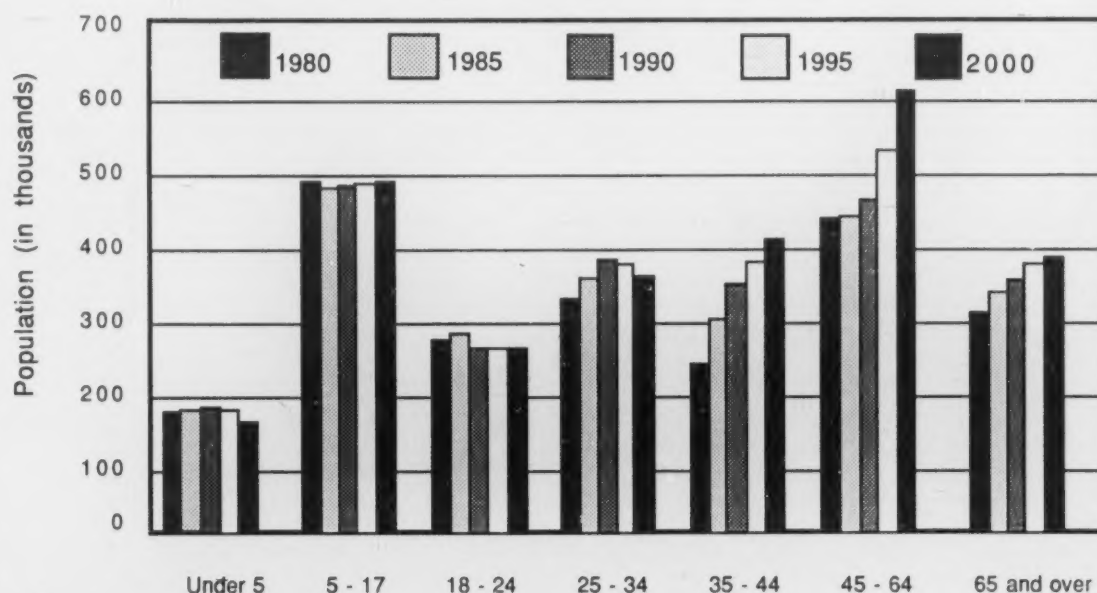
(30.9 percent or 107,495 persons vs. 2.3 percent or about 1,100 persons). For whites, the opposite is true: the under-65 population should experience a slower growth than the 65-and-over age group for the 20-year period (15.2 percent or 246,759 persons vs. 26.9 percent or 71,149 persons).

From 1980 to 2000, whites are expected to experience a decrease in each of the age groups in the under-25 population, ending the 20-year period with a 4.5 percent decline (about 33,500 persons) in that population. The nonwhite population for the same age group is expected to grow by 7.8 percent (about 16,300 persons) during the 20-year period with only the under-5 population showing a decline (284 persons or less than 1 percent). One possible explanation for the overall increase in this younger population for nonwhites is higher fertility rates.⁶ However, the decrease in the under-5 population for nonwhites is evidence that, even though nonwhite fertility rates are still higher than those for whites, the number of births and, consequently, the total fertility rates for nonwhites are dropping.

Proportionally, the nonwhite population will grow about three times as fast as the white population in the 25-to-34-year-old and 35-to-44-year-old age groups from 1980 to 2000 (Appendix Table V). For the 25-to-34-year-olds, nonwhites will experience an increase of 23.3 percent (12,379 persons) and whites an increase of 7.1 percent (19,924 persons). Nonwhites show an increase of 153.4 percent (46,178 persons) and whites an increase of 55.3 percent (120,265 persons) for the 35-to-44-year-olds. For 45-to-64-year-olds, nonwhites are projected to increase 58.6 percent (about 33,000 persons) compared to 36.3 percent (140,000 persons) for whites.

Whites are expected to far surpass nonwhites in the relative increases of the 65-and-over population, showing a 26.9 percent gain (71,149 persons) for the 20-year period compared to a low 2.3 percent gain (about 1,100 persons) for nonwhites. The 75-and-over population will increase almost 72 percent for whites (close to 72,000 persons) compared to 24.2 percent for nonwhites (about 4,900 persons). The most

Figure 10
Population by Selected Age Groups, Arkansas: 1980-2000



⁶Projected higher nonwhite fertility rates accompanied by an assumed significant decline in the rate of white immigration into the state and an expected cessation of nonwhite outmigration from the state may in part explain the projected 27.4 percent (108,588 persons) population increase for nonwhites as opposed to the projected 16.8 percent (317,908 persons) increase for whites (Appendix Table V).

impressive percentage gain for whites will be a 150.9 percent increase (32,448 persons) in the 85-and-over population. Nonwhites in this age group will increase by a much smaller but still impressive 86.8 percent (about 4,200 persons).

Longer life expectancies and differences in migration rates may be two reasons which explain the significant differences in relative changes of the 65-and-over population for whites and nonwhites. Latest figures from the National Center for Health Statistics show life expectancies at birth of 74.4 years for whites (70.5 for men and 78.6 for women) and 69.5 years for nonwhites (65.0 for men and 73.8 for women) (National Center for Health Statistics, *State Life Tables*). Also, whites tend to have higher net immigration rates than nonwhites for persons in the 65-and-over population. In other words, whites 65 and over move into the state faster than nonwhites of the same age. According to state net migration estimates, for the past three decades nonwhites have experienced a net outmigration in at least one of the age groups in the 65-and-over population; whites always showed a net inmovement.

The population pyramids in Figure 11 help illustrate the changing age and sex composition of the population for three periods for the white and nonwhite population.

Age-Dependency Ratios

Changes in the age structure are also reflected in changes in the age-dependency or support ratio, which is the ratio of the dependent population (under-18 and 65-and-over) to the working population (18 to 64), multiplied by 100.⁷ Table 3 shows three different ratios: (1) the youth ratio, which measures the economic burden placed on the working population by persons under 18; (2) the elderly ratio, which shows the burden resulting from the 65-and-over population; and (3) the total ratio, a sum of the youth and elderly ratios.

Because the total under-18 population will experience virtually no growth between the five-year periods from 1980 to 2000, the youth ratio for the state drops from 51.4 in 1980 to 39.9 in the year 2000. In response to this drop, the total age-dependency ratio also declines.

Particularly noteworthy are the differences in the ratios for whites and nonwhites. As previously mentioned, nonwhites have a higher percentage than whites of persons in the under-18 population. For this reason, the youth ratios for nonwhites are substantially higher than those for whites; these higher ratios in turn cause the total dependency ratios for nonwhites to be higher than those for whites. For example, the 1980 total age-dependency ratio for nonwhites was 103.2, which means that there were over 103 dependents for every 100 nonwhite persons of working age. For whites, the 1980 total age-dependency ratio was 70.5 or about 71 dependents for every

TABLE 3
AGE-DEPENDENCY RATIOS BY COLOR;
ARKANSAS: 1980-2000

	1980	1985	1990	1995	2000
Total					
Total	75.4	71.6	69.5	66.6	63.0
Youth	51.4	47.2	45.0	42.6	39.9
Elderly	24.0	24.4	24.5	24.0	23.1
Whites					
Total	70.5	67.4	65.7	63.3	60.6
Youth	46.6	42.6	40.4	38.3	36.2
Elderly	23.9	24.8	25.3	25.0	24.4
Nonwhites					
Total	103.2	94.7	89.5	82.9	74.5
Youth	78.7	72.3	69.0	64.2	57.6
Elderly	24.5	22.4	20.5	18.7	16.9

100 white persons 18 to 64. Nonwhites, however, will experience a much larger drop than whites in their youth age-dependency ratios for the 20-year period. This decline will be due to a significantly larger increase (48.4 percent) in the nonwhite 18-to-64 population than in the same white population (23.9 percent).

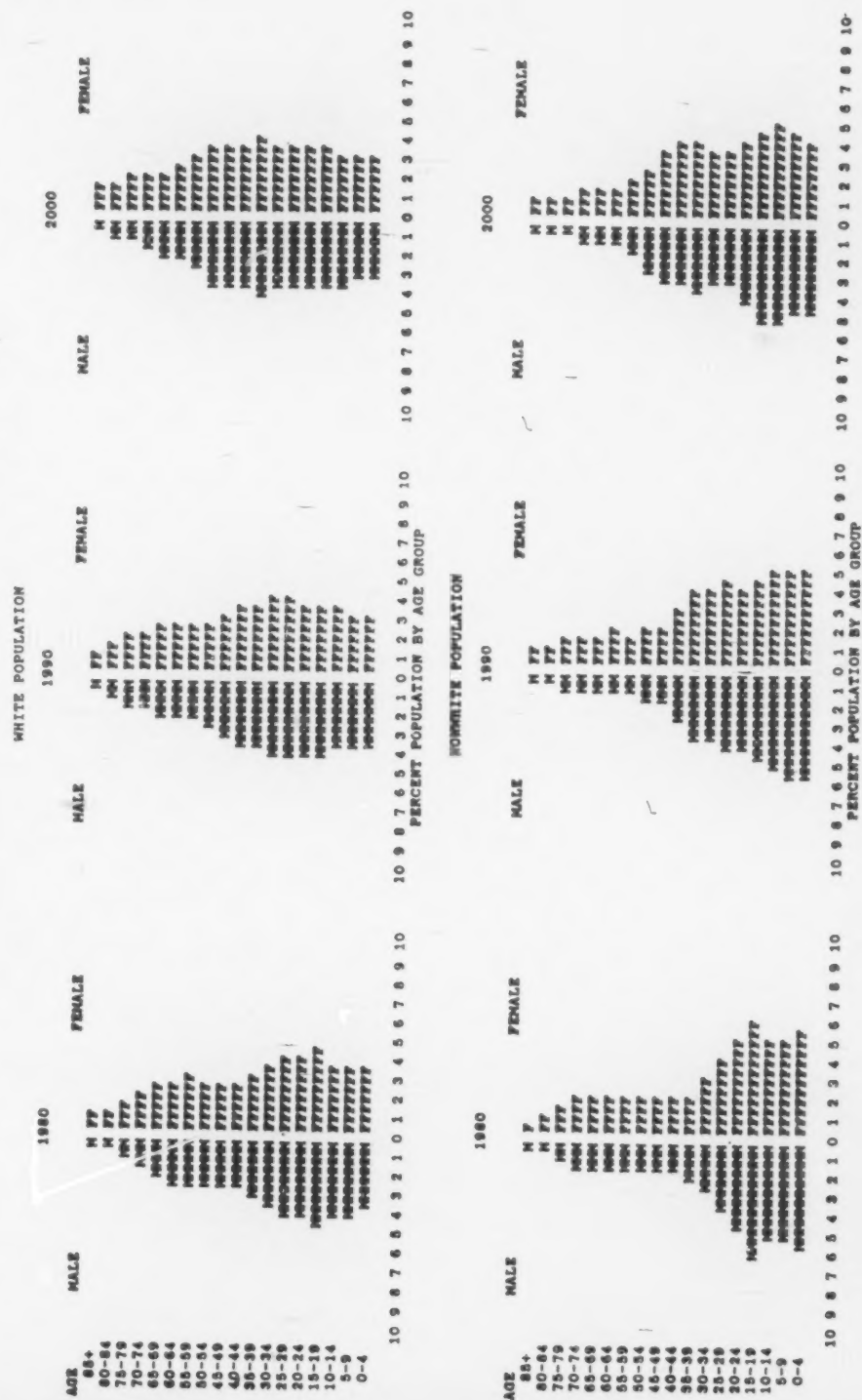
Summary

The population of Arkansas, just as that of the nation, is aging—the result of a shifting of the population from younger age groups to older groups. In 1980, the median age was 30.6 years, the highest ever for this state, and it is expected to increase to 36.3 years by the year 2000. A significant influence on the age structure will be the large cohort of persons born during the post-war baby boom. The impact of this group, which will represent about one-third to one-fourth of the total population for the 20-year period, will be felt as these persons age, causing a rise and then a decline in successive age groups.

While each of these age groups has its own significance and the rise and decline in each has its own implications, probably one of the most important considerations for the future will be the impact of the growing elderly population. This age group, which is already growing steadily, should experience a surge in numbers when the large baby boom cohort begins to reach retirement age. Careful planning should begin early in determining how to deal with the health, social, and economic problems related to this age group.

⁷Different age groups than those in this report may be used for the dependent population and the working population. Also, persons defined as "dependent" may be working and those included in the "working" population may be dependent.

Figure 11
Population Pyramids for Arkansas, by Color: 1980, 1990, and 2000



Prepared by Demographic Research, Center for Research and Public Policy, Research and Public Service, University of Arkansas at Little Rock.

Methodology and Assumptions

The cohort component technique was utilized in constructing the provisional projections. Application of the methodology involves separate assumptions concerning future levels of fertility, mortality, and net migration. These are the components accounting for change in a particular population over time. The projections were prepared in five-year time intervals, by five-year age groups, by sex and color. Data from the 1980 census were utilized as the benchmark count.

Age-specific birth rates were projected for females 10 to 49 years of age in five-year age groups for five-year time periods. The Arkansas rates are based on the total fertility rates used in the middle series of a set of national population projections published by the Bureau of the Census (U.S. Department of Commerce, Current Population Reports, P-25, No. 922, *Projections of the Population*).

Projected white total fertility rates by five-year time intervals were: 1980-1985, 1,773.6; 1985-1990, 1,825.0; 1990-1995, 1,831.7; and 1995-2000, 1,802.0. Actual 1980 state and national rates were 1,833.0 and 1,748.5, respectively.

Projected nonwhite total fertility rates were: 1980-1985, 2,680.0; 1985-1990, 2,594.5; 1990-1995, 2,458.0; and 1995-2000, 2,287.0. Actual 1980 state and national rates were 2,661.0 and 2,323.0, respectively.

A replacement-level population is represented by a total fertility rate of 2,120.0

White and nonwhite deaths projected to occur in Arkansas were based on anticipated changes in United States mortality rates as projected by the Social Security Administration. The middle mortality assumption on which the survivorship factors utilized in the study were based reflects a decline in mortality rates resulting in an ultimate life expectancy of 81.0 years in 2080 (U.S. Department of Commerce, Current Population Reports, Series P-25, No. 952, *Projections of the Population*). Life expectancies of the total population for the state and nation for the period 1979-1981 were 73.7 and 73.9 years, respectively. Because survivorship patterns contained in the 1979-1981 state and national life tables appeared sufficiently similar for both the white and nonwhite populations and for the sex categories within each color, projected national survivorship rates were utilized, without adjustment, to project Arkansas deaths.

Net migration is expected to occur throughout the remainder of the projection interval at the rate estimated to have taken place between 1980 and 1985. For this period, the estimated level of state net immigration was 57,400, indicating a net migration rate of 2.4 percent. Even though the 1970-1980 overall rate of net immigration is reduced by 51 percent over the projection period, decade county-level age-sex-color-specific migration rate patterns were not changed.

An analysis of various data series symptomatic of population change and migration was the basis for the decision concerning the expected rate of net immigration. Specific data series analyzed were births, deaths, school

enrollment, employment, Medicare enrollment, residential electric connections, and driver's license registration. Also considered was a 1985 provisional state population estimate of 2,359,000 prepared by the Census Bureau; this source included a 1980-1985 net migration estimate of 6,000, a migration rate of 0.3 percent.

A methodological procedure used in evaluating the reliability of the cohort component projections was the derivation of a civilian labor force from the 1985 population projections. The civilian labor force was derived by applying projected age-sex-color-specific labor force participation rates to the projected population. The size of the resulting civilian labor force was then compared to a July 1985 estimate prepared by the Arkansas Employment Security Division. The projected labor force was only 1 percent above the Employment Security Division estimate of 1,057,700.

Social and economic projections such as those presented by this report and the accompanying tables are constructed within a larger environmental framework. Underlying this framework are the broad assumptions that (1) a major economic change will not occur; (2) large-scale armed conflict will not take place; and (3) there will be no devastating epidemics or natural catastrophes.

Utilization of Projections

The practical applicability of these projections over the 20-year time frame depends on the degree to which projections of fertility, mortality, and net migration rates correspond to what actually does take place regarding each of these components of change.

Because the migration component reflects the effect of the economic downturn that occurred in the early part of the five-year period from 1980-1985, this component should be closely monitored and the projections revised if the migration rate changes sufficiently.

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APPENDIX

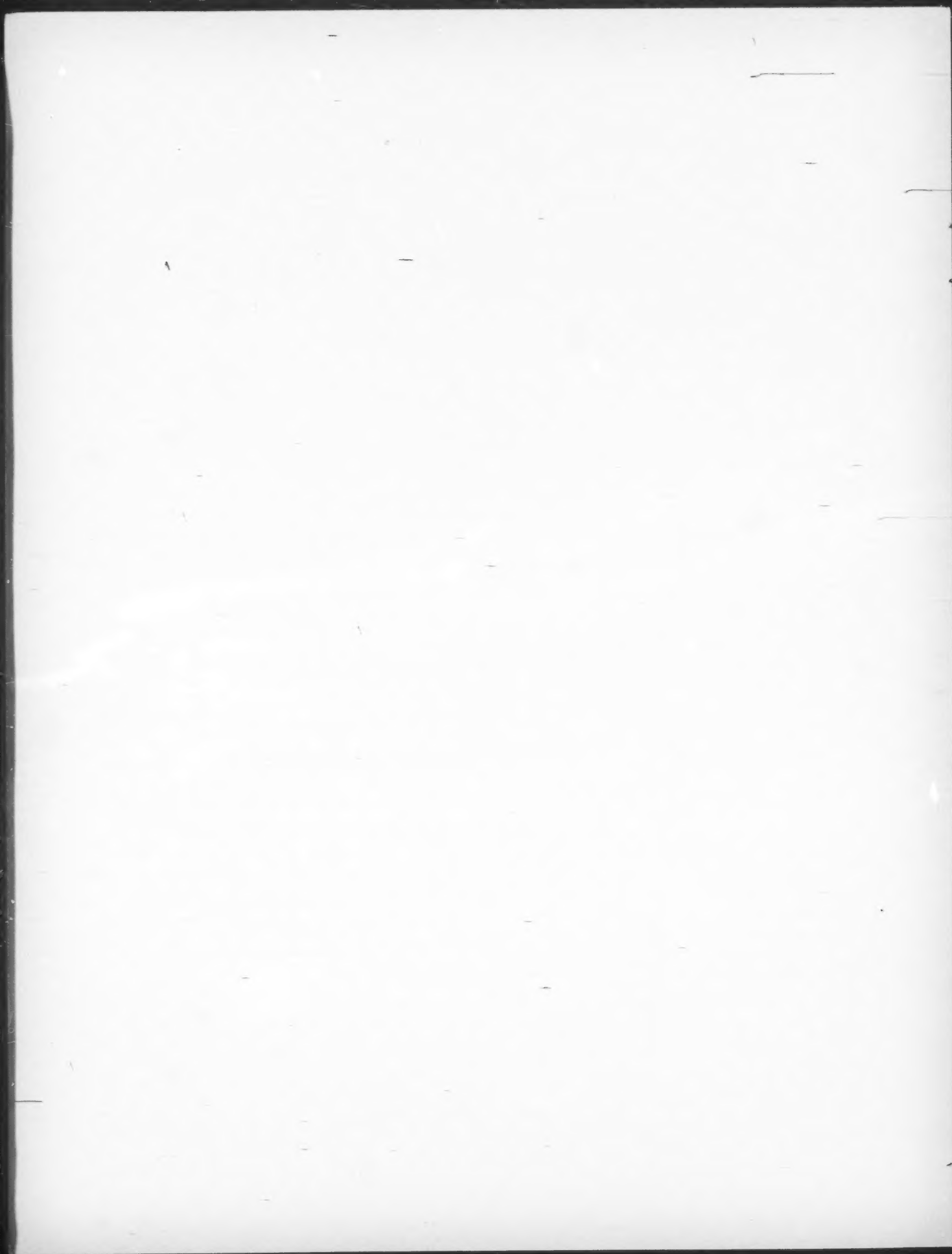


TABLE I
ARKANSAS' TOTAL POPULATION BY SELECTED
AGE GROUPS: 1980-2000

Sex and Age Group	1980 Census	1985 Estimate	Projections		
			1990	1995	2000
Both Sexes, All Ages	2,286,435	2,398,149	2,510,668	2,617,043	2,712,931
Under 5 years	175,592	179,597	184,016	179,604	171,450
5-17 years	494,449	480,138	482,312	490,161	493,041
18-24 years	279,498	287,554	268,400	267,682	267,870
25-34 years	335,337	365,270	392,680	389,156	367,640
35-44 years	247,415	301,357	352,635	384,590	413,858
45-64 years	441,667	443,257	467,372	529,241	614,353
65 years and over	312,477	340,976	363,253	376,609	384,719
75 years and over	120,030	144,921	169,014	184,215	196,621
85 years and over	26,354	31,133	41,086	52,180	63,013
Median Age	30.6	31.8	33.1	34.6	36.3
Male, All Ages	1,104,688	1,158,660	1,214,640	1,268,909	1,319,292
Under 5 years	90,138	92,153	94,398	92,151	87,978
5-17 years	252,404	245,551	246,941	251,095	252,551
18-24 years	138,469	145,651	136,397	136,292	136,785
25-34 years	164,125	178,134	194,316	196,001	186,082
35-44 years	120,449	147,166	172,694	187,677	204,966
45-64 years	206,362	208,401	222,359	254,847	297,733
65 years and over	132,741	141,604	147,535	150,846	153,197
75 years and over	46,538	55,079	63,257	67,173	70,048
85 years and over	9,132	10,278	12,949	16,066	19,109
Median Age	29.2	30.3	31.5	33.0	34.8
Female, All Ages	1,181,747	1,239,489	1,296,028	1,348,134	1,393,639
Under 5 years	85,454	87,444	89,618	87,453	83,472
5-17 years	242,046	234,588	235,371	239,066	240,490
18-24 years	141,028	141,902	132,003	131,390	131,085
25-34 years	171,212	187,136	198,364	193,155	181,558
35-44 years	126,966	154,191	179,941	196,913	208,892
45-64 years	235,305	234,856	245,013	274,394	316,620
65 years and over	179,736	199,372	215,718	225,763	231,522
75 years and over	73,492	89,842	105,757	117,042	126,573
85 years and over	17,222	20,855	28,137	36,114	43,904
Median Age	31.9	33.3	34.6	36.1	37.8

Source: Compiled by Demographic Research Division, Center for Research and Public Policy, Research and Public Service, UALR, from unpublished data.

TABLE II
ARKANSAS' WHITE POPULATION BY SELECTED
AGE GROUPS: 1980-2000

Sex and Age Group	1980	1985	Projections		
	Census	Estimate	1990	1995	2000
Both Sexes, All Ages	1,890,322	1,974,492	2,058,816	2,137,414	2,208,230
Under 5 years	132,128	132,129	136,516	134,110	128,270
5-17 years	384,465	370,238	365,180	367,249	369,690
18-24 years	223,538	229,637	215,174	212,606	208,696
25-34 years	282,185	300,494	321,302	318,552	302,109
35-44 years	217,313	261,583	296,042	315,508	337,578
45-64 years	385,955	388,177	410,124	461,874	526,000
65 years and over	264,738	292,234	314,478	327,515	335,887
75 years and over	99,897	122,703	144,900	159,524	171,614
85 years and over	21,502	25,573	34,048	44,141	53,950
Median Age	32.2	33.5	34.7	36.1	37.8
Male, All Ages	919,191	960,054	1,002,518	1,043,141	1,080,564
Under 5 years	68,195	68,127	70,377	69,141	66,134
5-17 years	197,246	190,371	187,942	189,105	190,327
18-24 years	112,024	117,186	110,251	109,081	107,424
25-34 years	139,549	148,843	161,422	162,466	154,516
35-44 years	107,173	128,969	146,538	156,424	169,782
45-64 years	182,753	185,138	197,842	224,802	257,433
65 years and over	112,251	121,420	128,146	132,122	134,948
75 years and over	38,124	46,168	53,990	58,116	61,276
85 years and over	7,181	8,168	10,488	13,397	16,255
Median Age	30.8	32.0	33.2	34.5	36.2
Female, All Ages	971,131	1,014,438	1,056,298	1,094,273	1,127,666
Under 5 years	63,933	64,002	66,139	64,969	62,136
5-17 years	187,219	179,866	177,239	178,144	179,363
18-24 years	111,514	112,452	104,922	103,525	101,272
25-34 years	142,636	151,651	159,880	156,086	147,593
35-44 years	110,140	132,614	149,504	159,084	167,796
45-64 years	203,202	203,039	212,282	237,072	268,567
65 years and over	152,487	170,814	186,332	195,393	200,939
75 years and over	61,773	76,535	90,910	101,408	110,338
85 years and over	14,321	17,405	23,560	30,744	37,695
Median Age	33.4	34.9	36.3	37.7	39.3

Source: *Loc. cit.*, Table I.

TABLE III
ARKANSAS' NONWHITE POPULATION BY SELECTED
AGE GROUPS: 1980-2000

Sex and Age Group	1980	1985	Projections		
	Census	Estimate	1990	1995	2000
Both Sexes, All Ages	396,113	423,657	451,852	479,629	504,701
Under 5 years	43,464	47,468	47,500	45,494	43,180
5-17 years	109,984	109,901	117,132	122,912	123,351
18-24 years	55,960	57,916	53,226	55,076	59,174
25-34 years	53,152	64,776	71,378	70,604	65,531
35-44 years	30,102	39,774	56,593	69,082	76,280
45-64 years	55,712	55,080	57,248	67,367	88,353
65 years and over	47,739	48,742	48,775	49,094	48,832
75 years and over	20,133	22,218	24,114	24,691	25,007
85 years and over	4,852	5,560	7,038	8,039	9,063
Median Age	23.5	24.6	26.1	27.5	29.0
Male, All Ages	185,497	198,606	212,122	225,768	238,728
Under 5 years	21,943	24,026	24,021	23,010	21,844
5-17 years	55,158	55,179	58,999	61,990	62,224
18-24 years	26,445	28,466	26,146	27,211	29,361
25-34 years	24,576	29,291	32,894	33,535	31,566
35-44 years	13,276	18,197	26,156	31,253	35,184
45-64 years	23,609	23,263	24,517	30,045	40,300
65 years and over	20,490	20,184	19,389	18,724	18,249
75 years and over	8,414	8,911	9,267	9,057	8,772
85 years and over	1,951	2,110	2,461	2,669	2,854
Median Age	21.9	23.0	24.1	25.2	26.9
Female, All Ages	210,616	225,051	239,730	253,861	265,973
Under 5	21,521	23,442	23,479	22,484	21,336
5-17 years	54,827	54,721	58,132	60,922	61,127
18-24 years	29,514	29,451	27,081	27,865	29,813
25-34 years	28,576	35,485	38,484	37,069	33,965
35-44 years	16,826	21,577	30,437	37,829	41,096
45-64 years	32,103	31,817	32,731	37,322	48,053
65 years and over	27,249	28,558	29,386	30,370	30,583
75 years and over	11,719	13,307	14,847	15,634	16,235
85 years and over	2,901	3,450	4,577	5,370	6,209
Median Age	24.9	26.3	27.9	29.6	31.0

Source: *Loc. cit.*, Table I.

TABLE IV
AGE GROUP DISTRIBUTIONS BY COLOR
ARKANSAS: 1980-2000

Sex and Age Group	1980	1985	Projections		
	Census	Estimate	1990	1995	2000
ALL RACES					
Both Sexes, All Ages	100.0	100.0	100.0	100.0	100.0
Under 5 years	7.7	7.5	7.3	6.9	6.3
5-17 years	21.6	20.0	19.2	18.7	18.2
18-24 years	12.2	12.0	10.7	10.2	9.9
25-34 years	14.7	15.2	15.6	14.9	13.6
35-44 years	10.8	12.6	14.0	14.7	15.3
45-64 years	19.3	18.5	18.6	20.2	22.6
65 years and over	13.7	14.2	14.5	14.4	14.2
75 years and over	5.2	6.0	6.7	7.0	7.2
85 years and over	1.2	1.3	1.6	2.0	2.3
WHITE					
Both Sexes, All Ages	100.0	100.0	100.0	100.0	100.0
Under 5 years	7.0	6.7	6.6	6.3	5.8
5-17 years	20.3	18.8	17.7	17.2	16.7
18-24 years	11.8	11.6	10.5	9.9	9.5
25-34 years	14.9	15.2	15.6	14.9	13.7
35-44 years	11.5	13.2	14.4	14.8	15.3
45-64 years	20.4	19.7	19.9	21.6	23.8
65 years and over	14.0	14.8	15.3	15.3	15.2
75 years and over	5.3	6.2	7.0	7.5	7.8
85 years and over	1.1	1.3	1.7	2.1	2.4
NONWHITE					
Both Sexes, All Ages	100.0	100.0	100.0	100.0	100.0
Under 5 years	11.0	11.2	10.5	9.5	8.6
5-17 years	27.8	25.9	25.9	25.6	24.4
18-24 years	14.1	13.7	11.8	11.5	11.7
25-34 years	13.4	15.3	15.8	14.7	13.0
35-44 years	7.6	9.4	12.5	14.4	15.1
45-64 years	14.1	13.0	12.7	14.0	17.5
65 years and over	12.1	11.5	10.8	10.2	9.7
75 years and over	5.1	5.2	5.3	5.1	5.0
85 years and over	1.2	1.3	1.6	1.7	1.8

Source: *Loc. cit.*, Table I.

TABLE V
CHANGES IN POPULATION, ARKANSAS; BY COLOR, AGE, AND SEX: 1980-2000

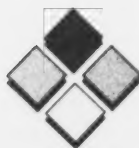
	Total			White			Nonwhite		
	Change			Change			Change		
	Absolute	Percent		Absolute	Percent		Absolute	Percent	
Total	2,286,435	2,712,931	18.7	426,496	18.7	1,890,322	2,208,230	317,908	16.8
Under 5	175,592	171,450	-2.4	-4,142	-2.4	132,128	128,270	-3,858	-2.9
5-17	494,449	493,041	-0.3	-1,408	-0.3	384,465	369,690	-14,775	-3.8
18-24	279,498	267,870	-4.2	-11,628	-4.2	223,538	208,696	-14,842	-6.6
25-34	335,337	367,640	9.6	32,303	9.6	282,185	302,109	19,924	7.1
35-44	247,415	413,858	67.3	166,443	67.3	217,313	337,578	120,265	55.3
45-64	441,667	614,353	39.1	172,686	39.1	385,955	526,000	140,045	36.3
65+	312,477	384,719	23.1	72,242	23.1	264,738	335,887	71,149	26.9
75+	120,030	196,621	63.8	76,591	63.8	99,897	171,614	71,717	71.8
85+	26,354	63,013	139.1	36,659	139.1	21,502	53,950	32,448	150.9
Males	1,104,688	1,319,292	19.4	214,604	19.4	919,191	1,080,564	161,373	17.6
Under 5	90,138	87,978	-2.4	-2,160	-2.4	68,195	66,134	-2,061	-3.0
5-17	252,404	252,551	0.1	147	0.1	197,246	190,327	-6,919	-3.5
18-24	138,469	136,785	-1.2	-1,684	-1.2	112,024	107,424	-4,600	-4.1
25-34	164,125	186,082	13.4	21,957	13.4	139,549	154,516	14,967	10.7
35-44	120,449	204,966	70.2	84,517	70.2	107,173	169,782	62,609	58.4
45-64	206,362	297,733	44.3	91,371	44.3	182,753	257,433	74,680	40.9
65+	132,741	153,197	15.4	20,456	15.4	112,251	134,948	22,697	20.2
75+	46,538	70,048	50.5	23,510	50.5	38,124	61,276	23,152	60.7
85+	9,132	19,109	109.3	9,977	109.3	7,181	16,255	9,074	126.4
Females	1,181,747	1,393,639	17.9	211,892	17.9	971,131	1,127,666	156,535	16.1
Under 5	85,454	83,472	-2.3	-1,982	-2.3	63,933	62,136	-1,797	-2.8
5-17	242,046	240,490	-0.6	-1,556	-0.6	187,219	179,363	-7,856	-4.2
18-24	141,028	131,085	-7.1	-9,943	-7.1	111,514	101,272	-10,242	9.2
25-34	171,212	181,558	6.0	10,346	6.0	142,636	147,593	4,957	3.5
35-44	126,966	208,892	64.5	81,926	64.5	110,140	167,796	57,656	52.3
45-64	235,305	316,620	34.6	81,315	34.6	203,202	268,567	65,365	32.2
65+	179,736	231,522	28.8	51,786	28.8	152,487	200,939	48,452	31.8
75+	73,492	126,573	72.2	53,081	72.2	61,773	110,338	48,565	78.6
85+	17,222	43,904	154.9	26,682	154.9	14,321	37,695	23,374	163.2

Source: Compiled by UALR Demographic Research Division from unpublished data.

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DEMOGRAPHIC BULLETIN



No. 5

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An Analysis of Arkansas' Population Growth and Shifts in Place of Residence Within the State: 1940 to 1987

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Introduction

A recent U.S. Census Bureau release of provisional state population estimates for July 1, 1987, indicates that Arkansas' population count is continuing to reflect a growth trend believed to have commenced in 1958. The 1987 estimate of 2,388,000 reflects a growth of 4.5 percent or 102,000 above the 1980 Census count of 2,286,435.

Arkansas ranked 33rd among the states and the District of Columbia in respect to population size in 1987, the same position it held in 1980. Estimated 1987 state populations ranged from 27,663,000 in California to 490,000 in Wyoming. Yet another way to think of the relative significance of Arkansas' population is that its 1987 count was approximately one percent of the nation's estimated total of 243,400,000.

The purpose of this paper is to describe and analyze 1) the growth in the state's population that occurred between 1940 and 1987, 2) the shifts in the place of in-state residence of this population over the period, and 3) the resulting county-level population concentration pattern that has evolved from the population growth and shift experience. It is the opinion of the author that the users of

population data have given too much emphasis to state growth patterns and much too little emphasis to place-of-residence movements within the state.

Since the prudent allocation of resources is an objective of both the private and public sectors, shifts in the place of residence, in addition to population growth statistics, should be included in the demographic data base used to explain expenditure decisions. In the public sector the combined use of these data series would be an asset in determining and explaining investment in infrastructure facilities (social overhead capital). Examples of relevant expenditure areas would be economic development, transportation, communications, public utilities, health, education, and ecology. This demographic data analysis paradigm would also contribute to the objective of improving the availability and quality of public infrastructure facilities for all the state's citizens.

Total State Population Growth and Shifts in Respect to Place of Residence, 1940-1987

Arkansas experienced population growth over the hundred-year period from 1840 to 1940, with 1840 marking the initial decennial census in

which Arkansas was enumerated as a state.⁽¹⁾ Its 1940 count of 1,949,387 was 20 times the 1840 count of 97,574.

A reversal of this hundred-year growth pattern occurred over the next two decades, 1940-1960. During this twenty year interval, the state's population fell from its 1940 level of 1,949,387 to 1,786,272 in 1960—a loss of 163,115, representing a relative decline of 8.4 percent.

Even though the state experienced growth during the 1970's (7.7 percent over the 1960 count), it was not until 1980 that the state achieved a population count that exceeded that of 1940. The 1980 count of 2,286,435 represented the largest numerical growth (363,140) achieved over the 14 intercensal intervals (ten-year periods) since 1840.

The 1980 population reflected a relative increase of 18.9 percent above the 1970 population count of 1,923,295. This state growth rate of 18.9 percent was also impressive when compared to the national rate, 11.4 percent, for the census interval. Yet estimates for the seven-year 1980-1987 time interval indicate that the nation is again growing faster than the state, 7.4 to 4.5 percent, respectively. In fact, the state's estimated 1980-1987 annual rate of growth, 0.6 percent, is just over a third of the 1.7 percent annual rate that occurred between 1970 and 1980.

Three factors account for change in a specific geographic area's population over time. These factors are births, deaths, and net migration.⁽²⁾ The following tabular insert shows these three

change factors for the seven-year interval between 1980 and 1987, and for each of the decennial intervals between 1940 and 1980.

Net outmigrations were experienced by the state in three of the time intervals, the decades from 1940 to 1970. In the initial two time intervals, net outmigration in each decade, 414,876 (1940-1950) and 430,937 (1950-1960), exceeded the natural increase recorded for each period resulting in population losses. Even though there was a net outmigration of 51,072 during the 1960-1970 intercensal interval, natural increase exceeded the net migration loss by 137,023, thus producing a population growth. As previously stated, the 1970-1980 growth (363,140) was the state's largest; in this period net immigration accounted for almost two-thirds (63.7 percent) of the growth and natural increase for the other 36.3 percent. By contrast, net immigration accounted for only 14.9 percent of the state's past seven year (1980-1987) estimated growth of 102,000, with natural increase accounting for 85.1 percent.

The net effect of these population movements from 1940 to 1987 was a growth of 438,613 (22.5 percent). This relative increment represents an annual growth rate of 0.4 percent.⁽³⁾ In respect to population rank, Arkansas fell from its 1940 position as the nation's 24th largest state to 33rd in 1987.

ESTIMATES OF COMPONENTS OF POPULATION CHANGE
ARKANSAS: 1940-1987

Time Period	Census		Population Change		Natural Increase			Net Migration	
	Ending	Beginning	Number	Percent	Births	Deaths	Total	Number	Percent
1980-1987	2,388,000	2,286,435	102,000	4.5	255,700	168,900	86,800	15,200	0.7
1970-1980	2,286,435	1,923,295	363,140	18.9	347,712	215,948	131,764	231,376	11.3
1960-1970	1,923,295	1,786,272	137,023	7.7	381,696	193,601	188,095	-51,072	-2.6
1950-1960	1,786,272	1,909,511	-123,239	-6.5	467,416	159,718	307,698	-430,937	-19.4
1940-1950	1,909,511	1,949,387	-39,876	-2.0	532,000	157,000	375,000	-414,876	-17.8

NOTE: The net migration rate is based on expected population.

Source: Compiled by Demographic Research Division, Center for Research and Public Policy, University of Arkansas at Little Rock, from U.S. Bureau of the Census and Arkansas Department of Health data, January 15, 1988.

Urban-Rural Residence Distribution Change

Arkansas' urban population increased by 747,646 (173.1 percent) between 1940 and 1980 and its rural population fell by 410,598 (27.1 percent) during the same forty-year interval, indicating a 1940-1980 net growth of 337,048 (17.3 percent).⁽⁴⁾ The 1980 urban and rural counts were 1,179,556 and 1,106,879 respectively. Thus urban residents accounted for 51.6 percent of Arkansas' 1980 population and rural residents for the remaining 48.4 percent; the 1940 ratios were 22.2 percent urban and 77.8 percent rural.⁽⁵⁾

The state's urban population grew steadily in each of the four decades between 1940 and 1980. The changes experienced in the rural population sector, however, reflected a different pattern. Most of the rural population loss occurred between 1940 and 1960; in fact, the rural population actually increased by 144,449 (15.0 percent, between 1970 and 1980. Rural losses in the three previous decades were as follows: 1940-1950, 238,557 (or 15.7 percent); 1950-1960, 257,951 (or 20.2 percent); and 1960-1970, 58,539 (or 5.7 percent).

An analysis of the two rural population subgroups, the rural farm and nonfarm categories, indicates that the change experienced by these segments has been quite the opposite. While the state's rural farm population fell from 1,111,007 in 1940 to 107,648 in 1980, reflecting an absolute loss of 1,003,359 (90.3 percent), its rural nonfarm population increased from 406,470 to 1,000,438 over the same period, reflecting an absolute gain of 593,968 (146.1 percent). Over three-fourths of the rural farm population loss (77.7 percent) was recorded in the first half of the period, 1940-1960, even though losses were experienced in each of the four decades. Gains in the rural nonfarm population have occurred in each decade, with gains of approximately 212,000 occurring in both the 1950's and 1970's. These two increases accounted for over seventy percent (71.6 percent) of the four-decade growth total.

Distribution, White and Nonwhite Population

Arkansas' 1940-1980 white population grew by 424,238 (28.9 percent) and its nonwhite population declined by 87,190 (18.0 percent). Whites accounted for 78.0 percent of the state's 1980

urban population of 1,179,556 and nonwhites for the remaining 22.0 percent. In 1980, whites accounted for an even greater proportion of the rural population, 87.7 percent. Non whites accounted for the other 12.3 percent.

Another significant measure of population distribution is the distribution of the white and nonwhite populations by residence. Of the 1980 white population count of 1,890,322, 51.4 percent were rural residents and 48.6 percent were urban residents. Comparable distributions of the 1980 nonwhite count of 396,113 were 65.6 percent urban and 34.4 percent rural. Rural farm residents accounted for 5.3 percent of the total white population and only 1.7 percent of the nonwhite total.

Sub-State Population Growth and Shifts in Respect to Place of Residence, 1940-1986

Only 28 or approximately a third (37.3 percent) of Arkansas' 75 counties had larger populations in 1980 than in 1940 (refer to following list). The population of these counties increased by 556,142 (63.0 percent) over the forty-year period, from 883,257 in 1940 to 1,439,399 in 1980.

ARKANSAS' 28 GROWTH COUNTIES: 1940-1980

<u>County</u>	<u>Growth Number</u>	<u>Percent</u>
Pulaski	184,528	118.2
Washington	59,380	144.4
Benton	41,967	116.1
Saline	33,998	177.4
Sebastian	32,363	51.5
Garland	28,867	69.3
Jefferson	25,617	39.4
Faulkner	20,312	78.5
Baxter	17,128	166.6
Craighead	16,039	34.0
White	13,659	36.7
Pope	13,339	51.9
Crawford	12,972	54.2
Boone	10,207	64.4
Hot Spring	7,903	41.8
Crittenden	7,026	16.5
Miller	5,892	18.5
Lonoke	4,716	15.8
Independence	4,504	17.6
Cleburne	3,775	28.7
Sharp	3,110	27.1
Grant	2,531	24.2
Marion	1,870	19.8
Carroll	1,466	10.0
Polk	1,175	7.4
Van Buren	839	6.7
Greene	540	1.8
Stone	419	4.9
TOTAL	556,142	63.0

In fact, the population growth in these 28 counties exceeded the 1940-1980 net state growth of 337,048 (17.3 percent) by 219,094 or 65.0 percent. The latter number, 219,094, also represents the forty-year population loss sustained by the state's 47 other counties (refer to Appendix Table 3).

The changes that occurred in the relative growth pattern of the state's counties have resulted in significant population shifts within the state in respect to both residential distribution and the extent of concentration. The 28 growth counties accounted for almost two-thirds (63.0 percent) of the state's 1980 population compared to only 45.3 percent of its 1940 total. Evidence of an even greater concentration of growth was that a mere 14 of the 28 accounted for 91.8 percent of these counties' total population increase of 556,142.

The remainder of this county-level analysis will be re-focused to center on an evaluation of the state's 15 largest counties as reported in the 1980 census (refer to the following list).

**POPULATION OF ARKANSAS' FIFTEEN
LARGEST COUNTIES: 1980**

<u>Rank</u>	<u>County</u>	<u>Population</u>
1	Pulaski	340,613
2	Washington	100,494
3	Sebastian	95,172
4	Jefferson	90,718
5	Benton	78,115
6	Garland	70,531
7	Craighead	63,239
8	Mississippi	59,517
9	Saline	53,161
10	White	50,835
11	Crittenden	49,499
12	Union	48,573
13	Faulkner	46,192
14	Pope	39,021
15	Miller	37,766
TOTAL		1,223,446

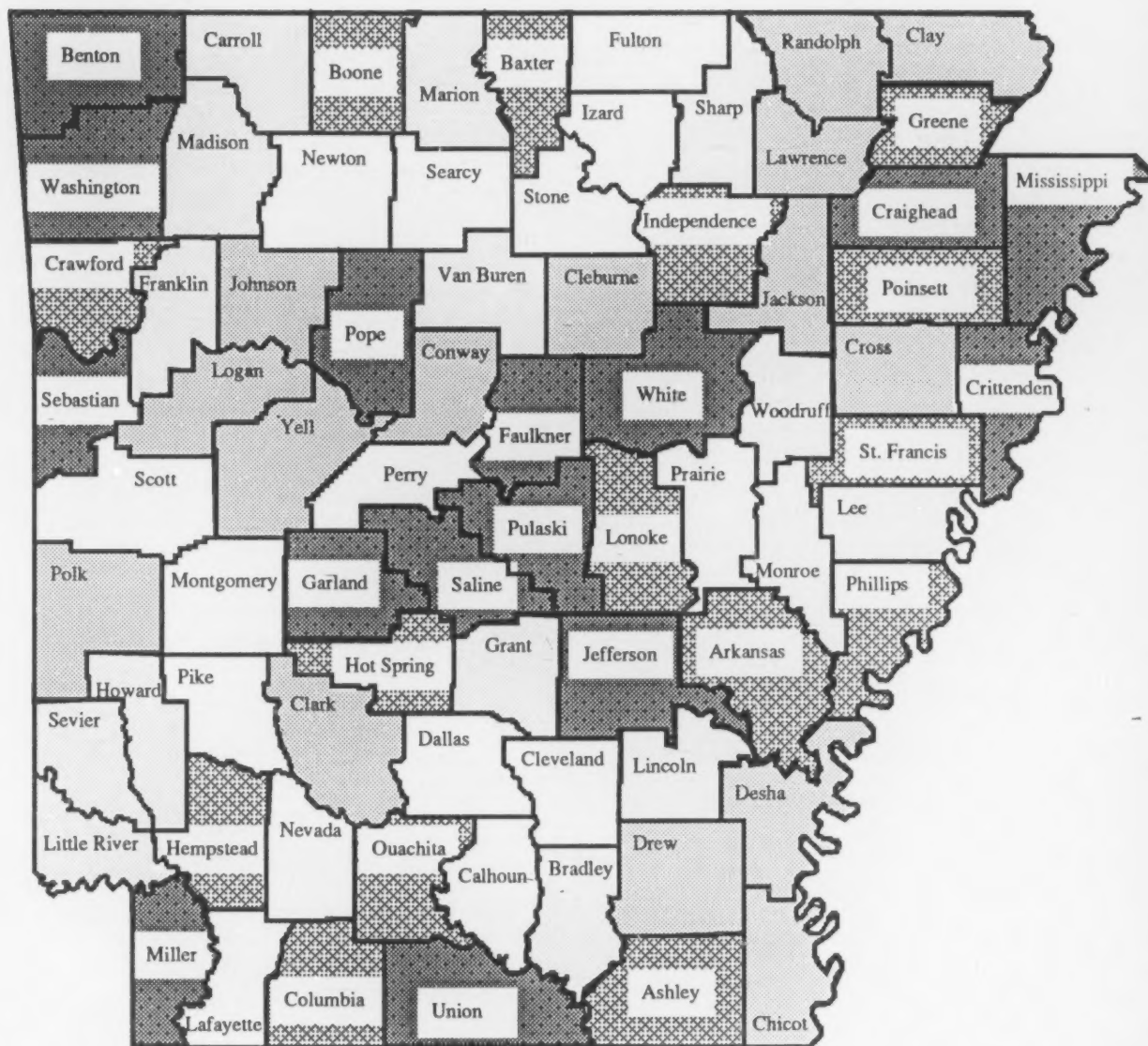
This appears to be appropriate since 13 of the 15 counties comprising this group were included in the top two-thirds of the 28 growth counties ranked in respect to absolute size of population increase experienced between 1940 and 1980. Mississippi and Union counties were the only two in this 15-county list to experience population losses over the forty-year interval. Mississippi County ranked first among the state's 47 counties experiencing losses; the county's absolute loss was 20,700, indicating a relative (percentage) decline of 25.8 percent. Even though Mississippi County sustained the largest absolute loss among the 47 losing counties, its relative (percentage) decline ranked 19th. Moreover, this county, with a 1980 total population of 59,517, was the state's eighth largest and is a substantial contributor of state employment and income. Union County's 1940-1980 population loss was relatively small, 3.7-percent, an absolute loss of 1,888.

This fifteen-county group accounted for over half (53.5 percent) or 1,223,446 of the state's 1980 census count of 2,286,435. By comparison, the 1940 population count for this county group totaled 763,047 and represented only 39.1 percent of the 1,949,387 state total. The data indicate that the percentage growth in the 15 county group's share of the state's total population was 36.8 percent over the forty years.

A review of the urban-rural population structure of the 15 counties shows that their 1980 urban population was 810,029 and their rural, 413,417, representing 66.2 and 33.8 percent respectively of the group's total count. Furthermore, this 15-county group contained 14 of the state's 15 largest urban populations and 12 of the 15 largest rural populations. This group's urban and rural counts also represented over two-thirds (68.7 percent) of the state's urban population and over a third (37.4 percent) of its rural population.

Another significant residence statistic is that pertaining to the state's urban residents living in places of 10,000 or more population (including those persons living in urbanized areas). The 1980 state count of this population totaled 872,019 of which 86.1 percent or 750,904 resided in the 15-county group.⁶⁸ These 15 counties also accounted for 19 of the state's 29 cities of 10,000 or more population.

POPULATION SIZE DISTRIBUTION, RANKED BY 15-COUNTY QUINTILES,
ARKANSAS: 1980



Range of Population	
	37,766 to 340,613
	23,635 to 36,892
	16,834 to 23,326
	11,222 to 16,203
	6,079 to 11,907

SOURCE: Derived from Appendix Table 6

A map depicting the 1980 size distribution of the state's population ranked by 15-county classes (quintiles) is shown on the preceding page. The location of the 15 largest counties in respect to their proximity to the state's other counties is significant. Six of the counties, Pulaski, Jefferson, Garland, Saline, White and Faulkner, form a contiguous group in the state's central area; and three, Craighead, Mississippi, and Crittenden, a contiguous cluster in the east. Three of the counties, Washington, Sebastian, and Benton, are situated in the northwest corner of the state. Pope County, situated by itself, is located between the northwest and central clusters and is close to both. The remaining two counties, Union and Miller, are located on the state's southwest and southcentral boundaries.^[7]

Additional insight into the extent of population concentration and that of related employment and personal income data is illustrated by the following tabular insert, which shows the shares of the state's total employment and personal income accounted for by each of the 15-county groups comprising the state's 1980 population quintile rank distribution.

**EMPLOYMENT AND PERSONAL INCOME
SHARES, BY POPULATION QUINTILES,
ARKANSAS: 1980**

County Quintile	Population	Employment	Personal
			Income*
		<u>Number</u>	
First	1,223,446	526,575	10,018.5
Second	436,791	172,375	3,076.3
Third	284,780	106,300	1,855.4
Fourth	204,043	72,650	1,298.5
Fifth	137,375	48,600	847.8
STATE TOTAL	2,286,435	926,500	17,096.6

* Millions of Dollars

	<u>Percent Distribution</u>		
First	53.5	56.8	58.6
Second	19.1	18.6	18.0
Third	12.5	11.5	10.9
Fourth	8.9	7.8	7.6
Fifth	6.0	5.3	5.0
STATE TOTAL	100.0	100.0	100.0

Source: Compiled from Appendix Table 6

The state's two largest population quintiles accounted for 72.6 percent of the state's population, 75.4 percent of its employment, and 76.6 percent of its personal income, whereas the remaining three quintiles' shares of total population, employment, and personal income were only 27.4, 24.6, and 23.5 percent respectively.

However, it should be noted that a ranking of counties as to dollar values of total personal income may not reflect the significance of that county's income as a measure of individual well-being as well as does per capita income. For example, the 1980 income data in Appendix Table 7 shows that even though Crawford County ranked 17th as to the dollar value of total personal income, it ranked 44th as to amount of income per person; and contrawise, even though Howard County ranked 47th in respect to total personal income, the county ranked 19th as to size of per capita income.

Yet another way to visualize the state's place-of-residence shifts is to review the population changes that have occurred within the state's eight planning and development districts. Four of the districts, the Central, Northwest, Western, and West Central experienced growth in their relative shares of the state's total population between 1940 and 1986. Especially significant were the share changes in the Central and Northwest. The Central District's population share increased from 13.7 to 22.3 percent and the Northwest's from 8.5 to 13.2 percent, reflecting relative changes in shares of 62.8 and 55.3 percent, respectively. The other four districts, the East, Southwest, Southeast, and White River, sustained losses in their relative shares of the state's population, although the White River District's loss in population share appears to have stabilized between 1980 and 1986.

**POPULATION OF PLANNING AND DEVELOPMENT DISTRICT,
ARKANSAS: 1986, 1980, 1940**

District	<u>1986</u>		<u>1980</u>		<u>1940</u>	
	<u>Number</u>	<u>Percent Distribution</u>	<u>Number</u>	<u>Percent Distribution</u>	<u>Number</u>	<u>Percent Distribution</u>
Northwest EDD	314,300	13.2	287,598	12.6	164,958	8.5
White River PDD	197,800	8.3	188,488	8.2	180,218	9.2
East PDD	383,700	16.2	387,531	16.9	441,989	22.7
Western PDD	205,100	8.6	193,605	8.5	157,511	8.1
West Central PDD	250,100	10.5	239,061	10.5	201,019	10.3
Central PDD	528,600	22.3	498,676	21.8	267,367	13.7
Southeast EDD	242,100	10.2	244,942	10.7	251,619	12.9
Southwest EDD	250,500	10.6	246,534	10.8	284,706	14.6
State	2,372,200	100.0	2,286,435	100.0	1,949,387	100.0

Source: Compiled from Appendix Table 3 and 4.

End Notes

⁽¹⁾ Arkansas was granted statehood in 1836 and was the nation's 25th state.

⁽²⁾ Net migration is computed as the difference between the "actual population" and the "expected population" at the end of a specific time period. Expected population is the population at the beginning of the time period plus the amount of natural increase (excess of births over deaths) during the time period.

⁽³⁾ It should be noted that population will double in size in 70 years if it experiences a growth of one percent compounded annually.

⁽⁴⁾ The 1987 population estimates are not available by color or by rural-urban residence.

⁽⁵⁾ According to the U.S. Bureau of the Census, "the urban population comprises all persons living in urbanized areas and in places of 2,500 or more population outside urbanized areas. An urbanized area comprises an incorporated place and adjacent densely settled surrounding areas that together have a minimum population of 50,000. The population not classified as urban constitutes the rural population.

⁽⁶⁾ A general definition used by the Census Bureau in defining an urbanized area is that "an urbanized area consists of a central city or cities, and surrounding closely settled territory ('urban fringe')."

⁽⁷⁾ County-level 1986 population estimates indicate that Crawford County has replaced Miller County as the state's fifteenth largest. Thus, the 1986 map will depict a four-county contiguous grouping in the northwest—Washington, Sebastian, Benton, and Crawford counties — leaving Union County as the only representative of the 15-county group on the state's southern boundary.

Appendix



APPENDIX - TABLE 1

**POPULATION, (WHITE AND NONWHITE) ARKANSAS, BY PLACE OF RESIDENCE :
1940-1980**

<u>Residence</u>	<u>Total</u>	<u>Number</u>		<u>Percent Distribution</u>		
		<u>White</u>	<u>Nonwhite</u>	<u>Total</u>	<u>White</u>	<u>Nonwhite</u>
<u>Urban</u>						
1980	1,179,556	919,635	259,921	100.0	78.0	22.0
1970	960,865	763,781	197,084	100.0	79.5	20.5
1960	765,303	591,576	173,727	100.0	77.3	22.7
1950	630,591	483,955	146,636	100.0	76.7	23.3
1940	431,910	326,770	105,140	100.0	75.7	24.3
<u>Rural¹</u>						
1980	1,106,879	970,687	136,192	100.0	87.7	12.3
1970	962,430	802,134	160,296	100.0	83.3	16.7
1960	1,020,969	804,127	216,842	100.0	78.8	21.2
1950	1,278,920	997,552	281,368	100.0	78.0	22.0
1940	1,517,477	1,139,314	378,163	100.0	75.1	24.9
<u>Rural Farm</u>						
1980	107,648	100,892	6,756	100.0	93.7	6.3
1970	173,677	152,781	20,896	100.0	88.0	12.0
1960	331,645	258,569	73,076	100.0	78.0	22.0
1950	801,827	604,488	197,339	100.0	75.4	24.6
1940	1,111,007	813,406	297,601	100.0	73.2	26.8
<u>Rural Nonfarm</u>						
1980	1,000,438	869,879	130,559	100.0	86.9	13.1
1970	787,162	648,725	138,437	100.0	82.4	17.6
1960	689,324	545,779	143,545	100.0	79.2	20.8
1950	477,093	393,064	84,029	100.0	82.4	17.6
1940	406,470	325,908	80,562	100.0	80.2	19.8
<u>Total</u>						
1980	2,286,435	1,890,322	396,113	100.0	82.7	17.3
1970	1,923,295	1,565,915	357,380	100.0	81.4	18.6
1960	1,786,272	1,395,703	390,569	100.0	78.1	21.9
1950	1,909,511	1,481,507	428,004	100.0	77.6	22.4
1940	1,949,387	1,466,084	483,303	100.0	75.2	24.8

¹The 1980-1970 rural farm and rural nonfarm counts will not equal to the rural population totals because they are derived from a sample.

Source: U.S. Bureau of the Census, Decennial Censuses, Arkansas, 1940-1980.

APPENDIX - TABLE 2

POPULATION CHANGE (WHITE AND NONWHITE) , ARKANSAS,

BY PLACE OF RESIDENCE : 1940-1980

Residence and Time-Interval	<u>Total</u>		<u>White</u>		<u>Nonwhite</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<u>Urban</u>						
1970-1980	218,691	22.8	155,854	20.4	62,837	31.9
1960-1970	195,562	25.6	172,205	29.1	23,357	13.4
1950-1960	134,712	21.4	107,621	22.2	27,091	18.5
1940-1950	198,681	46.0	157,185	48.1	41,496	39.5
<u>Rural</u>						
1970-1980	144,449	15.0	168,553	21.0	-24,104	-15.0
1960-1970	-58,539	-5.7	- 1,993	-0.2	-56,546	-26.1
1950-1960	-257,951	-20.2	-193,425	-19.4	-64,526	-22.9
1940-1950	-238,557	-15.7	-141,762	-12.4	-96,795	-25.6
<u>Rural Farm</u>						
1970-1980	-66,029	-38.0	- 51,889	-34.0	-14,140	-67.7
1960-1970	-157,968	-47.6	-105,788	-40.9	-52,180	-71.4
1950-1960	-470,182	-58.6	-345,919	-57.2	-124,263	-63.0
1940-1950	-309,180	-27.8	-208,918	-25.7	-100,262	-33.7
<u>Rural Nonfarm</u>						
1970-1980	213,276	27.1	221,154	34.1	-7,878	-5.7
1960-1970	97,838	14.2	102,946	18.9	-5,108	-3.6
1950-1960	212,231	44.5	152,715	38.9	59,516	70.8
1940-1950	70,623	17.4	67,156	20.6	3,467	4.3
<u>Total</u>						
1970-1980	363,140	18.9	324,407	20.7	38,733	10.8
1960-1970	137,023	7.7	170,212	12.2	-33,189	-8.5
1950-1960	-123,239	-6.5	-85,804	-5.8	-37,435	-8.7
1940-1950	-39,876	-2.0	15,423	1.1	-55,299	-11.4

Source: Derived from Appendix Table 1.

APPENDIX - TABLE 3

POPULATION BY PLANNING AND DEVELOPMENT DISTRICT, ARKANSAS: 1940 & 1980

	<u>1940</u>		<u>1980</u>		<u>Change</u> <u>1940-1980</u>	
	<u>Population</u>	<u>Percent</u>	<u>Population</u>	<u>Percent</u>	<u>Absolute</u>	<u>Percent</u>
Northwest EDD	164,958	8.5	287,598	12.6	122,640	74.4
Baxter	10,281	0.5	27,409	1.2	17,128	166.6
Benton	36,148	1.9	78,115	3.4	41,967	116.1
Boone	15,860	0.8	26,067	1.1	10,207	64.4
Carroll	14,737	0.8	16,203	0.7	1,466	10.0
Madison	14,531	0.7	11,373	0.5	-3,158	-21.7
Marion	9,464	0.5	11,334	0.5	1,870	19.8
Newton	10,881	0.6	7,756	0.3	-3,125	-28.7
Searcy	11,942	0.6	8,847	0.4	-3,095	-25.9
Washington	41,114	2.1	100,494	4.4	59,380	144.4
White River PDD	180,218	9.2	188,488	8.2	8,270	4.6
Cleburne	13,134	0.7	16,909	0.7	3,775	28.7
Fulton	10,253	0.5	9,975	0.4	-278	-2.7
Independence	25,643	1.3	30,147	1.3	4,504	17.6
Izard	12,834	0.7	10,768	0.5	-2,066	-16.1
Jackson	26,427	1.4	21,646	0.9	-4,781	-18.1
Sharp	11,497	0.6	14,607	0.6	3,110	27.1
Stone	8,603	0.4	9,022	0.4	419	4.9
Van Buren	12,518	0.6	13,357	0.6	839	6.7
White	37,176	1.9	50,835	2.2	13,659	36.7
Woodruff	22,133	1.1	11,222	0.5	10,911	-49.3
East PDD	441,989	22.7	387,531	16.9	-54,458	-12.3
Clay	28,386	1.5	20,616	0.9	-7,770	-27.4
Craighead	47,200	2.4	63,239	2.8	16,039	34.0
Crittenden	42,473	2.2	49,499	2.2	7,026	16.5
Cross	26,046	1.3	20,434	0.9	-5,612	-21.6
Greene	30,204	1.5	30,744	1.3	540	1.8
Lawrence	22,651	1.2	18,447	0.8	-4,204	-18.6
Lee	26,810	1.4	15,539	0.7	-11,271	-42.0
Mississippi	80,217	4.1	59,517	2.6	-20,700	-25.8
Phillips	45,970	2.4	34,772	1.5	-11,198	-24.4
Poinsett	37,670	1.9	27,032	1.2	-10,638	-28.2
Randolph	18,319	0.9	16,834	0.7	-1,485	-8.1
St. Francis	36,043	1.8	30,858	1.3	-5,185	-14.4
Western PDD	157,511	8.1	193,605	8.5	36,094	22.9
Crawford	23,920	1.2	36,892	1.6	12,972	54.2
Franklin	15,583	0.8	14,705	0.6	-978	-6.2
Logan	25,967	1.3	20,144	0.9	-5,823	-22.4
Polk	15,832	0.8	17,007	0.7	1,175	7.4
Scott	13,300	0.7	9,685	0.4	-3,615	-27.2
Sebastian	62,809	3.2	95,172	4.2	32,363	51.5

CONTINUED

APPENDIX - TABLE 3 (CONTINUED)

West Central PDD	201,019	10.3	239,061	10.5	38,042	18.9
Clark	24,402	1.3	23,326	1.0	-1,076	-4.4
Conway	21,536	1.1	19,505	0.9	-2,031	-9.4
Garland	41,664	2.1	70,531	3.1	28,867	69.3
Hot Spring	18,916	1.0	26,819	1.2	7,903	41.8
Johnson	18,795	1.0	17,423	0.8	-1,372	-7.3
Montgomery	8,876	0.5	7,771	0.3	-1,105	-12.5
Perry	8,392	0.4	7,266	0.3	-1,126	-13.4
Pike	11,786	0.6	10,373	0.5	-1,413	-12.0
Pope	25,682	1.3	39,021	1.7	13,339	51.9
Yell	20,970	1.1	17,026	0.7	-3,944	-18.8
Central PDD	267,367	13.7	498,676	21.8	231,309	86.5
Faulkner	25,880	1.3	46,192	2.0	20,312	78.5
Lonoke	29,802	1.5	34,518	1.5	4,716	15.8
Monroe	21,133	1.1	14,052	0.6	-7,081	-33.5
Prairie	15,304	0.8	10,140	0.4	-5,164	-33.7
Pulaski	156,085	8.0	340,613	14.9	184,528	118.2
Saline	19,163	1.0	53,161	2.3	33,998	177.4
Southeast EDD	251,619	12.9	244,942	10.7	-6,677	-2.7
Arkansas	24,437	1.3	24,175	1.1	-262	-1.1
Ashley	26,785	1.4	26,538	1.2	-247	-0.9
Bradley	18,097	0.9	13,803	0.6	-4,294	-23.7
Chicot	27,452	1.4	17,793	0.8	-9,659	-35.2
Cleveland	12,570	0.6	7,868	0.3	-4,702	-37.4
Desha	27,160	1.4	19,760	0.9	-7,400	-27.3
Drew	19,831	1.0	17,910	0.8	-1,921	-9.7
Grant	10,477	0.5	13,008	0.6	2,531	24.2
Jefferson	65,101	3.3	90,718	4.0	25,617	39.4
Lincoln	19,709	1.0	13,369	0.6	-6,340	-32.2
Southwest EDD	284,706	14.6	246,534	10.8	-38,172	-13.4
Calhoun	9,636	0.5	6,079	0.3	-3,557	-36.9
Columbia	29,822	1.5	26,644	1.2	-3,178	-10.7
Dallas	14,471	0.7	10,515	0.5	-3,956	-27.3
Hempstead	32,770	1.7	23,635	1.0	-9,135	-27.9
Howard	16,621	0.9	13,459	0.6	-3,162	-19.0
Lafayette	16,851	0.9	10,213	0.4	-6,638	-39.4
Little River	15,932	0.8	13,952	0.6	-1,980	-12.4
Miller	31,874	1.6	37,766	1.7	5,892	18.5
Nevada	19,869	1.0	11,097	0.5	-8,772	-44.2
Ouachita	31,151	1.6	30,541	1.3	-610	-2.0
Sevier	15,248	0.8	14,060	0.6	-1,188	-7.8
Union	50,461	2.6	48,573	2.1	-1,888	-3.7
State	1,949,387	100.0	2,286,435	100.0	337,048	17.3

Sources: Compiled by Research and Public Service, University of Arkansas at Little Rock, from U.S. Bureau of Census data, 1980 Census of Population, Vol 1, Pt 5, Chapter A, Arkansas, Table 2 Land Area and Population, p. 5, (Washington, U.S. Government Printing Office), Feb. 1982.

APPENDIX - TABLE 4

ESTIMATES OF THE POPULATION OF ARKANSAS COUNTIES, BY PLANNING AND DEVELOPMENT DISTRICT AND COMPONENTS OF CHANGE, 1980 TO 1986

Region and County	July 1, 1986	April 1, 1980	Change **		Components of Change, 1980 to 1986			
	Population Estimate	(Census) Population*	1980 to 1986		Births	Death	Net Migration	
			Number	Percent			Number	Percent
Northwest EDD	314,300	287,598	26,800	9.3	25,700	18,300	19,400	6.6
Baxter	30,300	27,409	2,900	10.7	1,800	2,600	3,800	13.7
Benton	89,000	78,115	10,800	13.9	7,200	5,100	8,700	11.1
Boone	27,900	26,067	1,900	7.2	2,300	1,800	1,400	5.3
Carroll	18,100	16,203	1,900	11.7	1,300	1,200	1,700	10.8
Madison	11,900	11,373	600	4.9	1,100	800	300	2.4
Marion	12,600	11,334	1,300	11.2	800	800	1,300	11.1
Newton	8,200	7,756	500	6.0	700	400	200	2.3
Searcy	8,900	8,847	0	0.2	600	600	0	0.3
Washington	107,400	100,494	6,900	6.8	9,900	5,000	2,000	2.0
White River PDD	197,800	188,488	9,200	4.9	15,500	13,100	7,000	3.7
Cleburne	19,300	16,909	2,400	14.3	1,200	1,300	2,500	14.7
Fulton	10,300	9,975	300	3.2	700	800	400	3.7
Independence	32,300	30,147	2,100	7.1	2,800	1,900	1,300	4.3
Izard	11,000	10,768	200	1.9	700	900	400	3.7
Jackson	20,700	21,646	-900	-4.2	1,700	1,500	-1,200	-5.3
Sharp	15,500	14,607	900	6.3	1,000	1,200	1,100	7.6
Stone	10,000	9,022	1,000	11.4	700	600	1,000	10.9
Van Buren	15,000	13,357	1,700	12.5	900	900	1,700	12.9
White	53,200	50,835	2,300	4.6	4,700	3,100	800	1.6
Woodruff	10,500	11,222	-800	-6.8	1,100	900	-1,000	-8.5
East PDD	383,700	387,531	-3,700	-1.0	40,900	24,600	-20,200	-5.0
Clay	19,400	20,616	-1,200	-6.1	1,500	1,600	-1,100	-5.2
Craighead	63,400	63,239	100	0.2	5,600	3,500	-2,000	-3.2
Crittenden	50,400	49,499	900	1.8	6,000	2,800	-2,300	-4.6
Cross	20,400	20,434	0	-0.2	2,200	1,300	-1,000	-4.7
Greene	31,700	30,744	900	3.0	2,500	2,000	400	1.2
Lawrence	18,100	18,447	-300	-1.7	1,600	1,400	-600	-3.0
Lee	15,000	15,539	-500	-3.5	1,800	1,100	-1,200	-7.9
Mississippi	58,000	59,517	-1,500	-2.5	7,600	3,600	-5,500	-9.2
Phillips	33,100	34,772	-1,700	-4.9	4,600	2,500	-3,700	-10.7
Poinsett	26,000	27,032	-1,000	-3.6	2,400	1,700	-1,700	-6.3
Randolph	16,700	16,834	-100	-0.7	1,300	1,100	-300	-1.7
St. Francis	31,500	30,858	700	2.2	3,800	2,000	-1,200	-3.8
Western PDD	205,100	193,605	11,500	5.9	18,400	12,000	5,100	2.6
Crawford	41,900	36,892	5,000	13.5	3,600	2,100	3,500	9.6
Franklin	15,700	14,705	1,000	6.7	1,300	1,000	700	4.8
Logan	20,900	20,144	800	3.9	1,800	1,400	400	2.0
Polk	17,100	17,007	100	0.4	1,500	1,300	-200	-1.2

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APPENDIX - TABLE 4 (CONTINUED)

Scott	10,300	9,685	600	6.3	700	700	600	6.5
Sebastian	99,200	95,172	4,000	4.3	9,500	5,500	100	0.1
West Central PDD	250,100	239,004	10,900	4.6	20,300	16,900	7,700	3.2
Clark	22,700	23,326	-700	-2.9	1,800	1,500	-1,100	-4.6
Conway	19,200	19,505	-300	-1.4	1,800	1,300	-800	-3.9
Garland	75,300	70,531	4,700	6.7	5,700	5,900	5,000	7.0
Hot Spring	27,400	26,819	500	2.0	2,200	1,700	0	0.1
Johnson	18,600	17,423	1,100	6.5	1,600	1,300	800	4.8
Montgomery	7,900	7,771	100	1.9	500	600	300	3.3
Perry	7,900	7,266	600	8.1	600	500	500	6.6
Pike	10,000	10,373	-300	-3.2	900	800	-400	-4.2
Pope	43,400	38,964 *	4,500	11.5	3,800	2,100	2,800	7.2
Yell	17,700	17,026	700	4.2	1,400	1,200	600	3.3
Central PDD	528,600	498,656	29,900	6.0	53,200	26,300	3,100	0.6
Faulkner	52,900	46,192	6,700	14.5	4,500	2,300	4,600	9.9
Lonoke	38,400	34,518	3,800	11.1	3,400	2,000	2,400	7.0
Monroe	12,900	14,052	-1,100	-8.1	1,400	1,100	-1,500	-10.5
Prairie	10,100	10,140	0	-0.3	900	700	-200	-2.0
Pulaski	356,300	340,598 *	15,700	4.6	38,400	17,900	-4,800	-1.4
Saline	58,000	53,156 *	4,800	9.1	4,600	2,300	2,600	4.9
Southeast EDD	242,100	244,942	-2,900	-1.1	24,000	15,500	-11,500	-4.5
Arkansas	23,100	24,175	-1,100	-4.6	2,200	1,800	-1,500	-6.2
Ashley	26,200	26,538	-300	-1.2	2,500	1,600	-1,200	-4.4
Bradley	13,200	13,803	-600	-4.4	1,100	1,100	-600	-4.3
Chicot	17,200	17,793	-600	-3.5	2,000	1,300	-1,400	-7.8
Cleveland	8,300	7,868	400	5.5	600	500	300	4.1
Desha	19,400	19,760	-400	-1.9	2,300	1,300	-1,400	-6.9
Drew	18,000	17,910	100	0.3	1,700	1,000	-600	-3.6
Grant	13,500	13,008	500	4.0	1,100	800	300	2.1
Jefferson	90,000	90,718	-700	-0.8	9,400	5,400	-4,800	-5.3
Lincoln	13,200	13,369	-200	-1.3	1,100	700	-600	-4.2
Southwest EDD	250,500	246,534	4,000	1.6	23,600	17,800	-1,600	-0.6
Calhoun	6,100	6,079	0	0.3	500	400	0	-0.6
Columbia	26,900	26,644	200	0.9	2,500	1,900	-300	-1.2
Dallas	10,400	10,515	-100	-0.9	1,000	900	-200	-1.6
Hempstead	23,000	23,635	-600	-2.6	2,100	1,700	-1,000	-4.3
Howard	13,500	13,459	0	0.1	1,400	1,000	-400	-2.9
Lafayette	9,800	10,213	-400	-4.3	1,000	900	-500	-5.2
Little River	14,100	13,952	200	1.3	1,200	800	-200	-1.4
Miller	38,900	37,766	1,200	3.1	3,800	2,400	-300	-0.7
Nevada	10,800	11,097	-300	-2.6	900	900	-300	-2.8
Ouachita	33,800	30,541	3,200	10.6	3,200	2,400	2,500	8.0
Sevier	14,200	14,060	100	0.8	1,200	1,000	-100	-0.7
Union	49,000	48,573	500	1.0	4,800	3,500	-800	-1.7
State	2,372,200	2,286,358	85,700	3.8	221,600	144,500	9,000	0.4

Notes: * Changes have been made to 1980 Census population.

** Added totals

Source: U.S. Bureau of the Census, Population Estimates Division, Unpublished Components of the Change Data, 1986 Population Estimates, Arkansas, by County, (Washington, D.C., June 26, 1987).

APPENDIX - TABLE 5

ARKANSAS' URBAN AND RURAL POPULATION, RANKED BY COUNTY SIZE: 1980

<u>County</u>	<u>Urban</u> <u>1980</u> <u>Population</u>	<u>Rank</u>	<u>County</u>	<u>Rural</u> <u>1980</u> <u>Population</u>	<u>Rank</u>
Pulaski	297,049	1	Pulaski	43,564	1
Sebastian	78,852	2	Benton	40,677	2
Jefferson	62,817	3	Washington	38,515	3
Washington	61,979	4	Garland	32,075	4
Mississippi	38,493	5	Craighead	31,709	5
Garland	38,456	6	Saline	31,035	6
Benton	37,438	7	White	30,868	7
Crittenden	36,424	8	Jefferson	27,901	8
Craighead	31,530	9	Faulkner	25,817	9
Union	25,270	10	Union	23,303	10
Miller	22,220	11	Crawford	22,104	11
Saline	22,126	12	Pope	21,988	12
Phillips	20,965	13	Independence	21,884	13
Faulkner	20,375	14	Mississippi	21,024	14
White	19,967	15	Lonoke	19,936	15
Pope	17,033	16	Baxter	19,343	16
Ouachita	15,356	17	Poinsett	17,787	17
Greene	15,248	18	St. Francis	17,055	18
Arkansas	14,869	19	Hot Spring	16,656	19
Crawford	14,788	20	Boone	16,500	20
Lonoke	14,582	21	Sebastian	16,320	21
St. Francis	13,803	22	Miller	15,546	22
Ashley	13,613	23	Greene	15,496	23
Clark	12,712	24	Ouachita	15,185	24
Columbia	11,909	25	Columbia	14,735	25
Desha	11,762	26	Phillips	13,807	26
Chicot	11,659	27	Yell	13,405	27
Hempstead	10,290	28	Lincoln	13,369	28
Hot Spring	10,163	29	Van Buren	13,357	29
Boone	9,567	30	Hempstead	13,345	30
Poinsett	9,245	31	Jackson	13,307	31
Jackson	8,339	32	Carroll	13,237	32
Independence	8,263	33	Clay	13,204	33
Drew	8,259	34	Crittenden	13,075	34
Baxter	8,066	35	Ashley	12,925	35
Cross	7,805	36	Cross	12,629	36
Logan	7,709	37	Logan	12,435	37
Bradley	7,646	38	Cleburne	12,320	38
Clay	7,412	39	Johnson	12,186	39

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APPENDIX - TABLE 5 (CONTINUED)

Conway	7,355	40	Conway	12,150	40
Lawrence	7,113	41	Polk	11,853	41
Lee	6,220	42	Madison	11,373	42
Randolph	5,995	43	Lawrence	11,334	43
Johnson	5,237	44	Marion	11,334	44
Dallas	5,175	45	Franklin	11,108	45
Polk	5,154	46	Randolph	10,839	46
Monroe	4,909	47	Sharp	10,818	47
Sevier	4,594	48	Izard	10,768	48
Cleburne	4,589	49	Clark	10,614	49
Howard	4,554	50	Pike	10,373	50
Little River	4,218	51	Prairie	10,140	51
Nevada	4,103	52	Grant	9,966	52
Sharp	3,789	53	Little River	9,734	53
Yell	3,621	54	Fulton	9,706	54
Franklin	3,597	55	Drew	9,651	55
Woodruff	3,496	56	Sevier	9,466	56
Grant	3,042	57	Lee	9,319	57
Carroll	2,966	58	Arkansas	9,306	58
Lafayette	2,859	59	Monroe	9,143	59
Scott	2,642	60	Stone	9,022	60
Fulton	269	61	Howard	8,905	61
Calhoun	-	-	Searcy	8,847	62
Cleveland	-	-	Desha	7,998	63
Izard	-	-	Cleveland	7,868	64
Lincoln	-	-	Montgomery	7,771	65
Madison	-	-	Newton	7,756	66
Marion	-	-	Woodruff	7,726	67
Montgomery	-	-	Lafayette	7,354	68
Newton	-	-	Perry	7,266	69
Perry	-	-	Scott	7,043	70
Pike	-	-	Nevada	6,994	71
Prairie	-	-	Bradley	6,157	72
Searcy	-	-	Chicot	6,134	73
Stone	-	-	Calhoun	6,079	74
Van Buren	-	-	Dallas	5,340	75
STATE TOTAL	1,179,556		STATE TOTAL	1,106,879	

SOURCE: Compiled by Demographic Research Division, Research and Public Service, University of Arkansas at Little Rock, from U.S. Bureau of the Census data, 1980 Census of Population, Vo. 1, Pt 5, Chapter A, Arkansas Table 3, p. 5, (Washington: U.S. Governmental Printing Office), Feb. 1982.

APPENDIX - TABLE 6

**EMPLOYMENT AND PERSONAL INCOME SHARES,
BY POPULATION QUINTILES, ARKANSAS: 1980**

<u>County</u>	<u>1980 Population</u>	<u>Rank by Population</u>	<u>1980 Personal Income*</u>	<u>Rank by Personal Income</u>	<u>April 1980 Employment</u>	<u>Rank by Employment</u>
Pulaski	340,613	1	3,243.9	1	155,550	1
Washington	100,494	2	727.2	3	45,775	2
Sebastian	95,172	3	830.6	2	41,000	3
Jefferson	90,718	4	685.1	4	35,400	4
Benton	78,115	5	639.8	5	33,875	5
Garland	70,531	6	600.5	6	28,300	7
Craighead	63,239	7	472.7	7	28,750	6
Mississippi	59,517	8	377.0	10	20,475	11
Saline	53,161	9	448.6	8	24,300	8
White	50,835	10	317.7	13	18,875	13
Crittenden	49,499	11	334.7	12	21,875	9
Union	48,573	12	422.9	9	19,075	12
Faulkner	46,192	13	362.0	11	21,100	10
Pope	39,021	14	274.3	16	16,125	14
Miller	37,766	15	281.5	14	16,100	15
First Quintile	1,223,448		10,018.5		526,575	
Crawford	36,892	16	243.5	17	15,900	16
Phillips	34,772	17	201.2	24	10,825	24
Lonoke	34,518	18	278.7	15	15,775	17
St. Francis	30,858	19	185.7	28	10,800	25
Greene	30,744	20	202.6	22	12,525	19
Ouachita	30,541	21	221.6	18	11,600	20
Independence	30,147	22	212.0	20	13,050	18
Baxter	27,409	23	217.1	19	9,050	31
Poinsett	27,032	24	178.8	29	11,000	21
Hot Spring	26,819	25	192.8	27	11,000	21
Columbia	26,644	26	202.1	23	10,625	26
Ashley	26,538	27	195.8	25	9,450	30
Boone	26,067	28	194.9	26	10,925	23
Arkansas	24,175	29	203.6	21	10,275	27
Hempstead	23,635	30	145.9	31	9,575	29
Second Quintile	436,791		3,076.3		172,375	
Clark	23,326	31	170.5	30	9,625	28
Jackson	21,646	32	144.2	32	8,150	32
Clay	20,616	33	128.0	36	7,675	34
Cross	20,434	34	135.0	34	8,050	33
Logan	20,144	35	133.9	35	7,225	37
Desha	19,760	36	125.2	38	6,950	39
Conway	19,505	37	138.1	33	7,525	35

*Millions of dollars

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APPENDIX - TABLE 6 (CONTINUED)

Lawrence	18,447	38	126.1	37	6,750	41
Drew	17,910	39	122.1	39	7,300	36
Chicot	17,793	40	93.2	52	5,600	48
Johnson	17,423	41	111.2	42	6,250	43
Yell	17,026	42	111.5	41	7,025	38
Polk	17,007	43	106.5	44	6,125	44
Cleburne	16,909	44	111.8	40	5,750	46
Randolph	16,834	45	98.1	48	6,300	42
Third Quintile	284,780		1,855.4		106,300	
Carroll	16,203	46	111.1	43	6,775	40
Lee	15,539	47	73.8	57	4,475	55
Franklin	14,705	48	95.4	49	5,775	45
Sharp	14,607	49	91.6	53	4,625	54
Sevier	14,060	50	99.4	46	5,725	47
Monroe	14,052	51	82.9	54	4,925	51
Little River	13,952	52	95.0	50	4,900	52
Bradley	13,803	53	94.7	51	4,950	50
Howard	13,459	54	98.3	47	5,350	49
Lincoln	13,369	55	69.6	63	4,025	59
Van Buren	13,357	56	76.4	55	4,075	57
Grant	13,008	57	101.1	45	4,875	53
Madison	11,373	58	71.0	61	4,275	55
Marion	11,334	59	70.8	62	3,850	61
Woodruff	11,222	60	67.4	66	4,050	58
Fourth Quintile	204,043		1,298.5		72,650	
Nevada	11,097	61	71.9	60	3,900	60
Izard	10,768	62	72.8	58	3,775	62
Dallas	10,515	63	74.7	56	3,675	64
Pike	10,373	64	68.0	65	3,775	62
Lafayette	10,213	65	72.2	59	3,400	68
Prairie	10,140	66	68.6	64	3,675	64
Fulton	9,975	67	56.4	68	3,475	67
Scott	9,685	68	57.6	67	3,525	66
Stone	9,022	69	45.0	71	3,100	69
Searcy	8,847	70	46.3	70	2,975	70
Cleveland	7,868	71	53.3	69	2,900	71
Montgomery	7,771	72	44.2	72	2,825	72
Newton	7,756	73	39.2	74	2,750	73
Perry	7,266	74	42.0	73	2,525	74
Calhoun	6,079	75	35.6	75	2,325	75
Fifth Quintile	137,375		847.8		48,600	
TOTAL	2,286,435		17,096.6		926,500	

SOURCE: Compiled by Demographic Research Division, Research and Public Service, University of Arkansas at Little Rock, April 1988, using data from the U.S. Bureau of the Census, the U.S. Bureau of Economic Analysis, and the Arkansas Employment Security Division.

APPENDIX - TABLE 7

*RANK OF ARKANSAS' COUNTIES BY 1980 PERSONAL INCOME
AND 1980 PER CAPITA INCOME*

<u>Counties</u>	<u>1980 Personal Income*</u>	<u>Rank by Personal Income</u>	<u>1980 Per Capita Income</u>	<u>Rank By Per Capita Income</u>
Pulaski	3,243.9	1	\$9,506	1
Sebastian	830.6	2	8,708	2
Washington	727.2	3	7,225	21
Jefferson	685.1	4	7,543	13
Benton	639.8	5	8,155	7
Garland	600.5	6	8,500	4
Craighead	472.7	7	7,474	14
Saline	448.6	8	8,413	5
Union	422.9	9	8,700	3
Mississippi	377.0	10	6,344	50
Faulkner	362.0	11	7,814	10
Crittenden	334.7	12	6,757	35
White	317.7	13	6,232	55
Miller	281.5	14	7,431	16
Lonoke	278.7	15	8,053	8
Pope	274.3	16	6,996	28
Crawford	243.5	17	6,578	44
Ouachita	221.6	18	7,229	20
Baxter	217.1	19	7,897	9
Independence	212.0	20	6,996	27
Arkansas	203.6	21	8,412	6
Greene	202.6	22	6,589	43
Columbia	202.1	23	7,570	12
Phillips	201.2	24	5,791	65
Ashley	195.8	25	7,351	17
Boone	194.9	26	7,459	15
Hot Spring	192.8	27	7,188	22
St. Francis	185.7	28	6,010	60
Poinsett	178.8	29	6,626	40
Clark	170.5	30	7,314	18
Hempstead	145.9	31	6,175	58
Jackson	144.2	32	6,663	38
Conway	138.1	33	7,095	24
Cross	135.0	34	6,592	42
Logan	133.9	35	6,639	39
Clay	128.0	36	6,223	56
Lawrence	126.1	37	6,823	31
Desha	125.2	38	6,338	51
Drew	122.1	39	6,804	32
Cleburne	111.8	40	6,594	41
Yell	111.5	41	6,538	46
Johnson	111.2	42	6,356	49
Carroll	111.1	43	6,840	30

* Millions of dollars

CONTINUED

APPENDIX - TABLE 7

Polk	106.5	44	6,239	54
Grant	101.1	45	7,763	11
Sevier	99.4	46	7,062	26
Howard	98.3	47	7,303	19
Randolph	98.1	48	5,841	64
Franklin	95.4	49	6,479	47
Little River	95.0	50	6,798	33
Bradley	94.7	51	6,866	29
Chicot	93.2	52	5,227	71
Sharp	91.6	53	6,241	53
Monroe	82.9	54	5,911	62
Van Buren	76.4	55	5,704	68
Dallas	74.7	56	7,101	23
Lee	73.8	57	4,734	75
Izard	72.8	58	6,745	37
Lafayette	72.2	59	7,085	25
Nevada	71.9	60	6,477	48
Madison	71.0	61	6,245	52
Marion	70.8	62	6,213	57
Lincoln	69.6	63	5,197	72
Prairie	68.6	64	6,759	34
Pike	68.0	65	6,571	45
Woodruff	67.4	66	6,019	59
Scott	57.6	67	5,949	61
Fulton	56.4	68	5,649	69
Cleveland	53.3	69	6,746	36
Searcy	46.3	70	5,240	70
Stone	45.0	71	4,961	74
Montgomery	44.2	72	5,713	67
Perry	42.0	73	5,761	66
Newton	39.2	74	5,052	73
Calhoun	35.6	75	5,853	63
STATE	17,096.6		\$7,465	

Source: Bureau of Economic Analysis, U.S. Department of Commerce, April, 1988.